



GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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June 17, 2014

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

ADOPTED

BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES

51 June 17, 2014

Sachi A. Hamai
SACHI A. HAMAI
EXECUTIVE OFFICER

Dear Supervisors:

**SUNSET UPPER DEBRIS BASIN DAM MODIFICATION PROJECT
ADOPT THE MITIGATED NEGATIVE DECLARATION AND THE MITIGATION
MONITORING AND REPORTING PROGRAM, AND APPROVE THE PROJECT
(SUPERVISORIAL DISTRICT 5)
(3 VOTES)**

SUBJECT

This action is to adopt the Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program for the Sunset Upper Debris Basin Dam Modification Project, located within the Los Angeles County Flood Control District in the City of Burbank; approve the Project; and authorize the Los Angeles County Flood Control District to begin implementation of the Project's preconstruction activities.

IT IS RECOMMENDED THAT THE BOARD ACTING AS THE GOVERNING BODY OF THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT:

1. Consider the Mitigated Negative Declaration for the proposed Sunset Upper Debris Basin Dam Modification Project, together with any comments received during the public review period, and find that the Mitigated Negative Declaration reflects the independent judgment and analysis of the Board; adopt the Mitigation Monitoring and Reporting Program, finding that it is adequately designed to ensure compliance with the mitigation measures during Project implementation; find on the basis of the whole record before the Board that there is no substantial evidence that the Project will have a significant effect on the environment; and adopt the Mitigated Negative Declaration.

2. Approve the Project and authorize the Los Angeles County Flood Control District to proceed with the preconstruction phase of the Project, including developing design plans and specifications, performing biological surveys, obtaining necessary permits from the regulatory agencies, and implementing preconstruction mitigation measures.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The purpose of the recommended actions is to adopt the Mitigated Negative Declaration (MND) and the Mitigation Monitoring and Reporting Program (MMRP) prepared pursuant to the California Environmental Quality Act (CEQA); approve the Project, which will increase the capacity of the undersized Sunset Upper Debris Basin to provide enhanced flood and debris protection to downstream communities; and authorize the Los Angeles County Flood Control District (District) to proceed with the Project's preconstruction activities including preparation of design plans and specifications, performance of biological surveys, obtaining required regulatory permits, and implementing preconstruction mitigation measures.

Implementation of Strategic Plan Goals

The Countywide Strategic Plan directs the provisions of Operational Effectiveness (Goal 1). This action will enable preconstruction activities to move forward for the Project, which will increase the facility's capacity and thus increase its effectiveness to provide flood protection for County residents in the City of Burbank.

FISCAL IMPACT/FINANCING

There will be no impact to the County General Fund.

The total project cost is estimated to be \$984,000. This includes \$467,000 expended for project predesign activities, including CEQA compliance included in the District Fund Budget for Fiscal Years 2008-09 through 2012-13. An estimated additional \$517,000 is necessary in Fiscal Years 2013-14 and 2014-15 to finance the remaining preconstruction activities including the completion of design and permit acquisition, to fund Project construction, and implementation of mitigation measures. Funding for the proposed Fiscal Year 2014-15 will be requested through the annual budget process based on the final construction cost estimate.

FACTS AND PROVISIONS /LEGAL REQUIREMENTS

The Initial Study, required under CEQA, indicates that the proposed Project would not have a significant effect on the environment with the incorporation of mitigation measures. This Initial Study identified that a MND is the appropriate environmental document for the Project. The MND incorporates those mitigation measures.

ENVIRONMENTAL DOCUMENTATION

An Initial Study was prepared by the County of Los Angeles Department of Public Works on behalf of the District, which is the lead agency for the Project, pursuant to CEQA. Based on the Initial Study, an MND was prepared for this Project. The MND shows that there is no substantial evidence, in light of the whole record before the District, that the Project may have a significant effect on the environment. The Initial Study identified potentially significant effects on the area of Biological Resources. Prior to the release of the proposed MND and Initial Study, revisions to the Project were made or agreed to, which would avoid the significant effects or mitigate the effects to a point where clearly no significant effects would occur, as follows:

Biological Resources: Bird deterrent measures, preconstruction bird nesting surveys, bird exclusion measures, bird protection buffers, biological monitoring, and consultation with regulatory agencies shall be employed to reduce impacts to potential nesting birds protected by the Federal Migratory Bird Treaty Act and/or the Federal Endangered Species Act.

The Initial Study and Project revisions showed that there is no substantial evidence that, in light of the whole record before the District, that the Project, as revised, may have a significant effect on the environment.

A Public Notice was published in the *Los Angeles Times* on March 6, 2013, pursuant to the California Public Resources Code Section 21092, and posted pursuant to Section 21092.3. The Initial Study and MND, and all referenced documents, were made available for public review at Public Works' Alhambra headquarters from March 6, 2013 through April 12, 2013. The documents were also made available online on Public Works' website at <http://www.dpw.lacounty.gov/wrd/CEQA/Sunset>, and at the City of Burbank's Central Library and Buena Vista Branch Library. A Public Notice was also mailed to all property owners and occupants contiguous to the Project location on March 7, 2013, pursuant to Section 21092(b)(3)(C). Written comments were received from the California Office of Planning and Research, California Department of Water Resources Division of Safety of Dams, Los Angeles County Fire Department, and the

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City of Burbank. Responses to those comments are included in the MND and were sent to those agencies.

The location of the documents and other materials constituting the record of the proceedings upon which the Board's decision is based in this matter is at Public Works, Water Resources Division, 900 South Fremont Avenue, 2nd Floor, Alhambra, CA 91803. The custodian of such documents and materials at Public Works is Ms. Patricia Wood.

The Project is not exempt from payment of a fee to the California Department of Fish and Wildlife pursuant to Section 711.4 of the Fish and Wildlife Code to defray the costs of fish and wildlife protection and management incurred by the California Department of Fish and Wildlife. Upon the Board's adoption of the MND, Public Works will file a Notice of Determination in accordance with Section 21152(a) of the California Public Resources Code, and pay the required filing and processing fees with the Registrar Recorder/County Clerk in the amount of \$2,156.25.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

The Project will increase public safety during storm events by providing greater flood protection and reducing flood risk to downstream communities.

CONCLUSION

Please return one adopted copy of this letter to Public Works, Water Resources Division.

Respectfully submitted,



GAIL FARBER
Director of Public Works

GF:CS:yg

Enclosures

cc: Chief Executive Office (Rita Robinson)
County Counsel
Executive Office

BonTerra
CONSULTING



EXHIBIT A

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

SUNSET UPPER DEBRIS BASIN DAM MODIFICATION PROJECT COUNTY OF LOS ANGELES, CALIFORNIA

Prepared for | County of Los Angeles
Department of Public Works
Water Resources Division
900 South Fremont Avenue, Second Floor
Alhambra, California 91803

Prepared by | BonTerra Consulting
225 South Lake Avenue, Suite 1000
Pasadena, California 91101
T: (626) 351-2000 F: (626) 351-2030

February 2013

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SECTION 1.0 INTRODUCTION

1.1 PURPOSE OF THE INITIAL STUDY

In accordance with the California Environmental Quality Act (CEQA) (*California Public Resources Code* §21000 et seq.) and the CEQA Guidelines (*California Code of Regulations*, Title 14, §15000 et seq.), this Initial Study (IS) has been prepared to support the adoption of a Mitigated Negative Declaration (MND) for the proposed Sunset Upper Debris Basin Dam Modification Project (Project). This IS/MND evaluates the potential environmental impacts of Project implementation and recommends mitigation measures to lessen or avoid the Project's significant adverse impacts on the environment.

Section 15367 of the CEQA Guidelines defines the Lead Agency as the public agency with the principal responsibility for carrying out or approving a project. The Los Angeles County Flood Control District (LACFCD), now administered by the County of Los Angeles Department of Public Works (LACDPW), will be responsible for approval and construction of the Project, as well as for long-term maintenance. Thus, the LACFCD serves as the Lead Agency for the Project and is responsible for complying with CEQA and the CEQA Guidelines.

Section 15063(c) of the CEQA Guidelines identifies the purposes of an Initial Study as follows:

- (1) To provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or a Negative Declaration;
- (2) To enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration;
- (3) To assist in the preparation of an EIR, if one is required, by focusing the EIR on the effects determined to be significant, identifying the effects determined not to be significant, explaining the reasons for determining that potentially significant effects would not be significant, and identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects;
- (4) To facilitate environmental assessment early in the design of a project;
- (5) To provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment;
- (6) To eliminate unnecessary EIRs; and
- (7) To determine whether a previously prepared EIR could be used with the project.

This IS for the proposed Project serves these purposes.

In accordance with Section 21082.1 (c) of CEQA and Section 15074 (b) of the CEQA Guidelines, the LACFCD authorized the preparation of this IS/MND and has reviewed and revised, as necessary, all submitted drafts and technical studies to reflect its own independent judgment, including (1) reliance on applicable LACFCD technical personnel and (2) review of all technical reports. Data for this IS/MND was obtained from on-site field observations; discussions with affected agencies; review of available technical studies, reports, guidelines, and data; and other studies prepared for the Project (including air quality and greenhouse gas construction emissions modeling, a biological resources assessment, a jurisdictional delineation, and a cultural resources record search and field survey).

1.2 SUMMARY OF IMPACTS AND MITIGATION

The proposed Project would raise the spillway height by five feet through the construction of a five-foot-high parapet wall on top of the existing dam. The existing access road crossing the southern end of the dam would be raised by varying amounts up to 4.8 feet to match the increased dam elevation. The proposed Project would provide an additional 8,000 cubic yards (cy) of storage capacity to the Sunset Upper Debris Basin, located behind the Sunset Upper Dam. The Project site is located on County of Los Angeles-owned property within the City of Burbank, in the upper section of Sunset Canyon in the Verdugo Mountains.

As detailed in Section 4.0 of this IS/MND, the proposed Project would result in environmental impacts during short-term construction activities and long-term maintenance of the Project. There are existing local, State, and federal regulations or laws that need to be implemented by the proposed Project and are independent of CEQA review. These regulations are considered regulatory requirements (RRs) and serve to offset or prevent certain environmental impacts. Because RRs are incorporated into the Project, either in the design or as part of Project implementation, they do not constitute mitigation measures (MMs). According to Section 15370 of the CEQA Guidelines, "mitigation" includes the following:

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

The proposed Project would be required to comply with all applicable RRs, as outlined in Section 4.0. In addition, the Project would be required to implement identified MMs to avoid or reduce potentially significant adverse impacts to Biological Resources. The following MMs have been developed to reduce the significant impacts of the proposed Project to a less than significant level:

**TABLE 1-1
SUMMARY OF IMPACTS AND MITIGATION**

Potential Impact	Mitigation Measure
<p>Although no coastal California gnatcatchers were observed during 2008 focused surveys, the species could have moved into the biological study area due to the presence of suitable habitat. If the coastal California gnatcatcher were to occur at the Project site in the future, increased noise and human activity could indirectly impact coastal California gnatcatchers (if present).</p>	<p>MM 4.4-1 Prior to construction of the dam modifications, the County of Los Angeles Flood Control District (LACFCD) or their consultant will contact the U.S. Fish and Wildlife Service (USFWS) to determine the appropriate pre-construction survey methodology (e.g., full protocol survey or a reduced-visit modified survey protocol) for the coastal California gnatcatcher and discuss and obtain approval on pre-nesting season exclusionary measures and avoidance and minimization measures if a nesting coastal California gnatcatcher is observed during the pre-construction survey. The LACFCD will implement the approved exclusionary measures prior to the coastal California gnatcatcher's breeding season. A permitted gnatcatcher Biologist (i.e., one holding a 10[a][1][A] permit to conduct surveys for the coastal California gnatcatcher) shall conduct a pre-construction survey for coastal California gnatcatcher following the methodology approved by the USFWS to determine the presence or absence of this species in the coastal sage scrub in and adjacent to the Project site. If no coastal California gnatcatchers are observed, no further avoidance or mitigation would be required. If the coastal California gnatcatcher is observed during the pre-construction survey, the LACFCD (and/or its consultant Biologist) will implement the approved avoidance and minimization measures. These measures may include biological monitoring by a permitted gnatcatcher Biologist during construction or maintenance activities; construction or maintenance activities restricted to occur outside the breeding season (February 14 to August 15); or noise restrictions near the occupied area.</p> <p>Prior to any maintenance activities within the expanded maintenance areas during the breeding season, the LACFCD will follow the same pre-construction survey as described above. This approach is consistent with the LACFCD's existing debris basin maintenance permits.</p>
<p>The proposed Project would impact an estimated 0.233 acre of "Waters of the United States", including 0.009 acre of wetlands under the jurisdiction of the U.S. Army Corps of Engineers, and 0.258 acre of resources under the jurisdiction of the California Department of Fish and Wildlife* that are not covered by the existing permits for routine maintenance of the Sunset Upper Debris Basin.</p>	<p>MM 4.4-2 Prior to construction, the LACFCD will obtain permits/agreements from the U.S. Army Corps of Engineers (USACE), the California Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW) to authorize impacts to "waters of the United States", including wetlands, and resources under the jurisdiction of the CDFW that are outside the impacts already authorized under the LACFCD's existing permits/agreement for maintenance of the debris basin. (These maintenance authorizations are comprised of: USACE Regional Permit File No. SPL-2003-00411-KW; RWQCB File No. 02-144-2008 Renewal; and CDFW Streambed Alteration Agreement No. 1600-2008-0290-R5.) No Project-related discharge or fill material will be allowed to impact any drainages in the Project impact area until the new permits/agreement are obtained. Compliance with the conditions of the new permits/agreement and applicable conditions of the existing maintenance permits/agreement will be made part of the Project construction. Based on LACFCD's experience, these conditions may include biological monitoring during the initiation of construction; use of Best Management Practices (BMPs) to protect water quality; flagging of the boundaries of the construction site; measures to protect trees; other measures to protect sensitive species; mitigation for construction impacts outside those already authorized in the existing maintenance permits/agreement; and mitigation for ongoing impacts within the expanded maintenance area. Such mitigation may include on-site or off-site preservation or restoration of impacted habitat.</p>

**TABLE 1-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION**

Potential Impact	Mitigation Measure
	<p>It is anticipated that the permits/agreement for the construction of the Project will also cover the first several years of maintenance within the expanded maintenance area, until the LACFCD and the permitting agencies can coordinate to amend the existing maintenance permits/agreement to incorporate the additional maintenance footprint.</p>
<p>If a raptor is nesting in the woodlands adjacent to the Project site during construction activities (including geotechnical testing), the increased noise and human activity could disturb the raptor and consequently the success of its nest.</p>	<p>MM 4.4-3 The LACFCD will work with the CDFW during the preparation of the Project's Streambed Alteration Agreement to incorporate into the Agreement CDFW-approved temporary exclusionary measures to prevent raptor nesting within the established buffer distance from the Project construction areas. The LACFCD will employ approved exclusionary measures prior to February 1 (start of raptor breeding season) and remove them upon completion of construction activities. Prior to construction of the proposed Project, a pre-construction survey for active raptor nests shall be conducted by a qualified Biologist prior to the commencement of any construction activities, as directed in the CDFW Streambed Alteration Agreement. If an active nest is observed, it shall be mapped and a buffer zone designated per CDFW's direction to protect the nest. Construction activities will be excluded from this buffer zone until the nest is no longer active.</p> <p>Prior to any maintenance activities within the expanded maintenance areas during the breeding season (February 1 to July 30), the LACFCD will follow the same pre-construction survey procedure and restrictions as described above. This approach is consistent with the LACFCD's existing debris basin maintenance permits.</p>
<p>Construction of the proposed Project could directly or indirectly (through increased noise and human activity) impact nesting birds that are protected under the Migratory Bird Treaty Act.</p>	<p>MM 4.4-4 The LACFCD will work with the CDFW during the preparation of the Project's Streambed Alteration Agreement to incorporate into the Agreement CDFW-approved temporary exclusionary measures to prevent migratory bird nesting within the established buffer distance from the Project construction areas. The LACFCD will employ approved exclusionary measures prior to March 1 (start of nesting season) and remove them upon completion of construction activities. Prior to commencement of construction of the proposed Project, a pre-construction survey for active bird nests shall be conducted by a qualified Biologist, as directed in the CDFW Streambed Alteration Agreement. The survey shall include all potential nesting areas, including dam structures and bare ground. If an active nest is observed, it shall be mapped and a buffer zone designated per CDFW's direction to protect the nest; the size of the buffer will be determined by the Biologist based on the sensitivity of the species and CDFW requirements. Construction/maintenance activities will be excluded from this buffer zone until the nest is no longer active.</p> <p>Prior to any maintenance activities within the expanded maintenance areas during the nesting season (March 1 to August 31), the LACFCD will follow the same pre-construction survey procedure and restrictions as described above. This approach is consistent with LACFCD's existing debris basin maintenance permits.</p>
<p>* The California Department of Fish and Game (CDFG) changed its name to the California Department of Fish and Wildlife (CDFW) effective January 1, 2013.</p>	

1.3 PROJECT APPROVALS

The IS/MND was provided to the State Clearinghouse, responsible and trustee agencies and other interested agencies for review and comment. A Notice of Intent to Adopt the IS/MND has also been published in the *Los Angeles Times*; was directly mailed to the 135 residences located downstream of the Sunset Upper Debris Basin Dam on Country Club Drive/Olive Avenue to its intersection with Kenneth Road and has been filed with the County of Los Angeles County Clerk/Registrar-Recorder. The IS/MND and associated technical reports were made available for public review online at the LACDPW's website at <http://dpw.lacounty/wrd/CEQA/Sunset/> and at the following three locations during normal business hours:

County of Los Angeles
Department of Public Works
Water Resources Division
900 South Fremont Avenue, 2nd Floor
Alhambra, California 91803

Burbank Central Library
110 North Glenoaks Boulevard
Burbank, California 91502

Buena Vista Branch Library
300 North Buena Vista Street
Burbank, California 91505

There will be a 30-day public review and comment period for the IS/MND, in accordance with Section 15073 of the CEQA Guidelines. During this time, the LACFCD (via the LACDPW) will accept written comments from the public and agencies on the IS/MND. In reviewing the IS/MND, the reviewer should focus on the sufficiency of the document in identifying and analyzing the Project's potential impacts on the environment and ways in which the potentially significant effects of the proposed Project are avoided or mitigated. Comments on the IS/MND may be sent, with the subject line "Sunset Upper Debris Basin Dam Modification Project IS/MND", to:

Grace Yu, PE, LEED AP
County of Los Angeles Department of Public Works
Water Resources Division
900 South Fremont Avenue, 2nd Floor
Alhambra, California 91803
gyu@dpw.lacounty.gov

In accordance with Section 15074 of the CEQA Guidelines, prior to approving the Project, the County of Los Angeles Board of Supervisors (Board) must consider the IS/MND together with any comments received during the public review process. The Board will adopt the IS/MND only if it finds that there is no substantial evidence that the Project will have a significant effect on the environment.

1.4 ORGANIZATION OF IS/MND

This IS/MND is organized into the following sections:

Section 1.0 – Introduction: This section provides an introduction to the IS/MND process and a brief overview of the findings of the environmental analysis.

Section 2.0 – Environmental Setting: This section describes the Project location and the existing environmental setting of the Project area.

Section 3.0 – Project Description: This section provides the Project objectives and Project description; it also identifies the approvals needed for Project implementation.

Section 4.0 – Environmental Checklist Form: The completed CEQA checklist form provides the analysis of the potential impacts that may result from Project implementation. The environmental checklist form also includes “Mandatory Findings of Significance”, per CEQA requirements.

This section contains the analysis of environmental impacts identified in the environmental checklist and identifies the RRs that the Project would need to comply with, as well as the mitigation measures (MMs) that would eliminate potentially significant adverse effects or reduce them to less than significant levels, where applicable.

Section 5.0 – References: This section identifies the references used in preparation of the IS/MND.

Section 6.0 – Report Preparers and Contributors: This section identifies the individuals responsible for preparing the IS/MND.

SECTION 2.0 ENVIRONMENTAL SETTING

2.1 PROJECT LOCATION

Sunset Canyon is located in the Verdugo Mountains in Los Angeles County, as shown in Exhibit 2-1, Regional Location and Local Vicinity. The debris dam and debris basin are located on County of Los Angeles owned property within the City of Burbank. The location and surrounding natural setting of the Sunset Upper Debris Basin Dam are shown in Exhibit 2-2, Aerial Photograph.

2.2 SUNSET UPPER DEBRIS BASIN DAM HISTORY

The Sunset Upper Debris Basin Dam was built to create a debris basin at the upper portion of Sunset Canyon, within the City of Burbank and north of the terminus of Country Club Drive (which runs along the canyon bottom downstream of the Sunset Upper Debris Basin Dam). The dam was constructed in 1929 by the Los Angeles County Flood Control District (LACFCD; administration of LACFCD facilities is now vested with the County of Los Angeles Department of Public Works [LACDPW]). The dam and debris basin reduce the volume of debris (comprising of dirt, rocks, and displaced vegetation) making its way to the neighborhood below the Sunset Upper Watershed of Sunset Canyon.

The Sunset Upper Watershed flows into the Sunset Lower Watershed, which also collects flows from the Sunset Deer Watershed as shown on Exhibit 2-3, Sunset Canyon Watershed. Accordingly, nearby debris basins include the Sunset Lower Debris Basin constructed in 1963 by the U.S. Army Corps of Engineers (USACE) at the mouth of the canyon, and the Sunset Canyon Deer Debris Basin constructed in 1982 by the LACFCD at the location where Deer Canyon joins Sunset Canyon. These facilities, now owned by the LACFCD and maintained by the LACDPW, would not be impacted by the proposed Project.

The capacity of the Sunset Upper Debris Basin Dam is significantly less than the potential debris runoff volume generated by its tributary watershed. Wildfires in the Verdugo Mountains in 1964, 1980, and 2005 led to heavy mudflows in Sunset Canyon and on Country Club Drive during subsequent rain events. Following the October 2005 Harvard Fire, a temporary "rail and timber structure"¹ with an estimated storage capacity of 1,000 cubic yards (cy) was placed across Country Club Drive (just upstream of the street's terminus) to collect debris from Sunset Upper Debris Basin overflow and from a side canyon, which does not have a debris basin. Also subsequent to the Harvard Fire, the County made a commitment to the City of Burbank to address mudflow hazards from the Sunset Upper Canyon and surrounding sub-watersheds. In 2007, the County presented the results of a feasibility study that included five alternatives for controlling the debris flows within Sunset Canyon and on Country Club Drive. The feasibility study recommended the construction of a temporary rail and timber structure at the terminus of Country Club Drive (which was already completed) and a permanent five-foot high parapet wall on top of the existing Sunset Upper Debris Basin Dam, to increase the capacity of the debris basin, along with an investigation of potential landslide locations within the Upper Sunset Canyon Watershed.

¹ A debris collection device constructed of timber and metal rail.

2.3 PROJECT SITE CHARACTERISTICS

Unless otherwise specified, "Project site" refers to the Sunset Upper Debris Basin Dam site, and "proposed Project" refers to implementation of the proposed improvements at the Sunset Upper Debris Basin Dam.

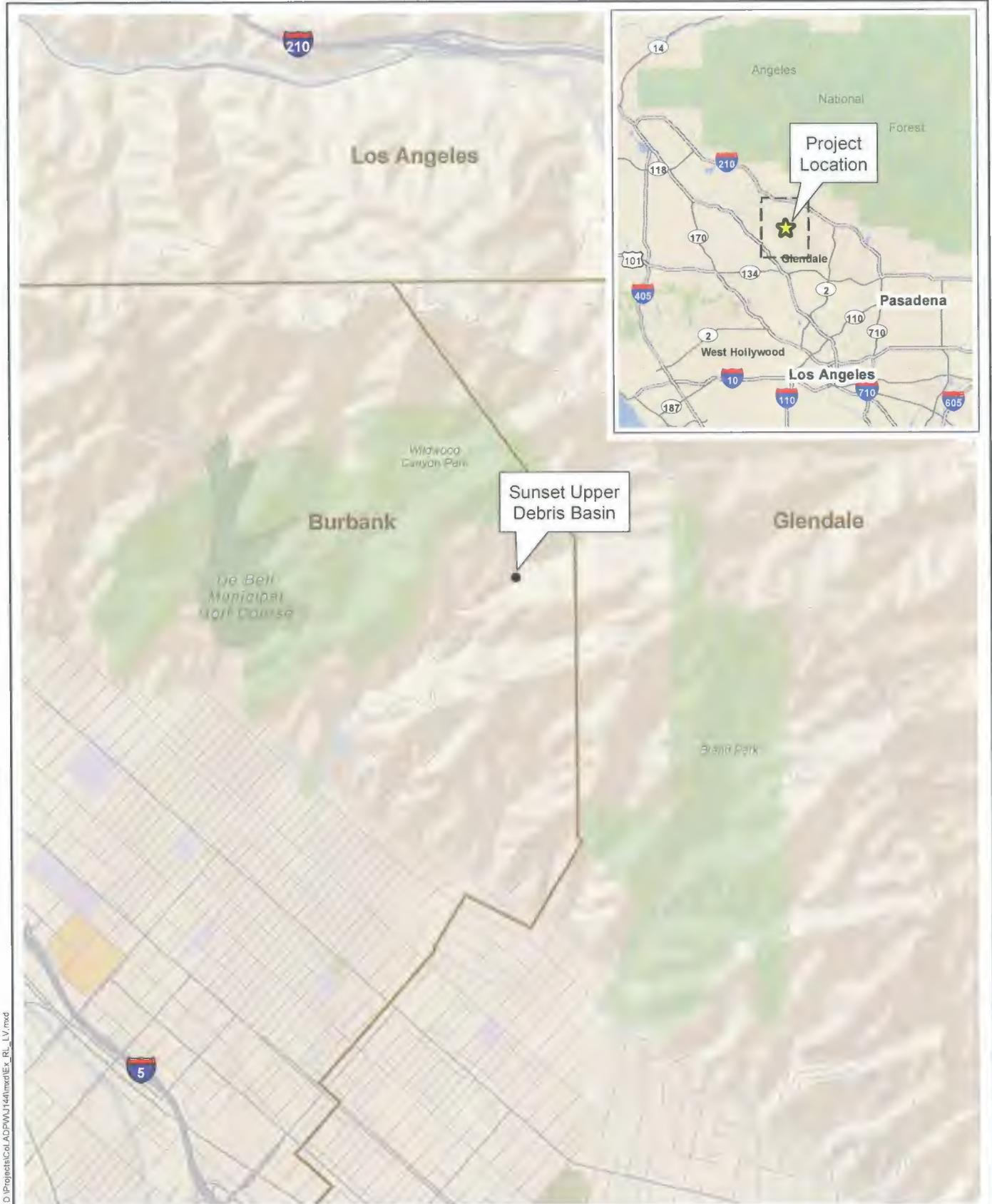
Sunset Upper Debris Basin Dam

Sunset Canyon is defined by steep side slopes and a narrow canyon bottom. The Sunset Upper Debris Basin Dam is located at the upper section of the canyon, and retains debris runoff from a 0.44-square-mile watershed. Exhibit 2-4, Sunset Upper Debris Basin Dam Site Photographs, shows the existing conditions of the Sunset Upper Debris Basin Dam and surrounding area and each viewpoint is described below.

- **View 1 – View of Sunset Canyon Dam, Looking East.** This view is seen from the downstream access road looking east at the dam as it spans Sunset Canyon, with the maintenance shed at the northern end of the dam. Steep slopes on both sides of the canyon and the distant hills supporting scrub and woodland vegetation are visible within the viewshed.
- **View 2 – View of Sunset Canyon Debris Basin, Looking East.** This is a view of the debris basin located just upstream of the dam. The photograph is taken from the edge of the debris basin, looking east. As shown, the basin bottom is relatively flat, but features steep slopes and heavy vegetation farther upstream.
- **View 3 – View of Sunset Canyon Dam, Looking South.** This view is from the western slopes of Sunset Canyon looking south at the dam. The dam structure is highly visible in this view, with the debris basin in the foreground. The access road runs to the top of the southern end of the dam, and is defined by the gunite² slopes that were created by slope cuts along the eastern/southern sides of the road.
- **View 4 – View of Sunset Canyon Dam, Looking West.** This is a view of the Sunset Canyon Dam as seen from the debris basin, looking west. The concrete dam spans the narrow canyon bottom and extends up the steep slopes of the canyon.

The concrete arch dam that forms the debris basin is 28.7 feet high and 181 feet wide, and its spillway (in the center of the dam) is 75 feet wide. The spillway is flanked by crest walls that are 5.8 and 6.8 feet higher than the spillway. The left and right parapet walls extend 25 feet on each side, step up by 1 foot, and extend for another 28 feet. The northern end of the dam features a protection fence barrier on top of the parapet wall. A protection fence is also present on the parapet wall at the southern section of the dam. A concrete walkway and steps lead up to the northern end of the dam, where a maintenance shed is located. This shed was originally used by County staff for monitoring the dam, but is no longer in use. A paved access road serves the debris basin and extends northeasterly from the terminus of Country Club Drive, where an access gate/barrier is located (approximately 1,000 feet downstream of the dam). From the debris basin, the access road is approximately 15 to 20 feet wide, with a concrete gutter and gunite slope along the south side and an existing metal beam guard railing on the north side, and becomes a dirt road farther to the east.

² A mixture of cement, sand or crushed slag and water, sprayed over reinforcement as lightweight concrete construction (Dictionary.com, unabridged, 2013).



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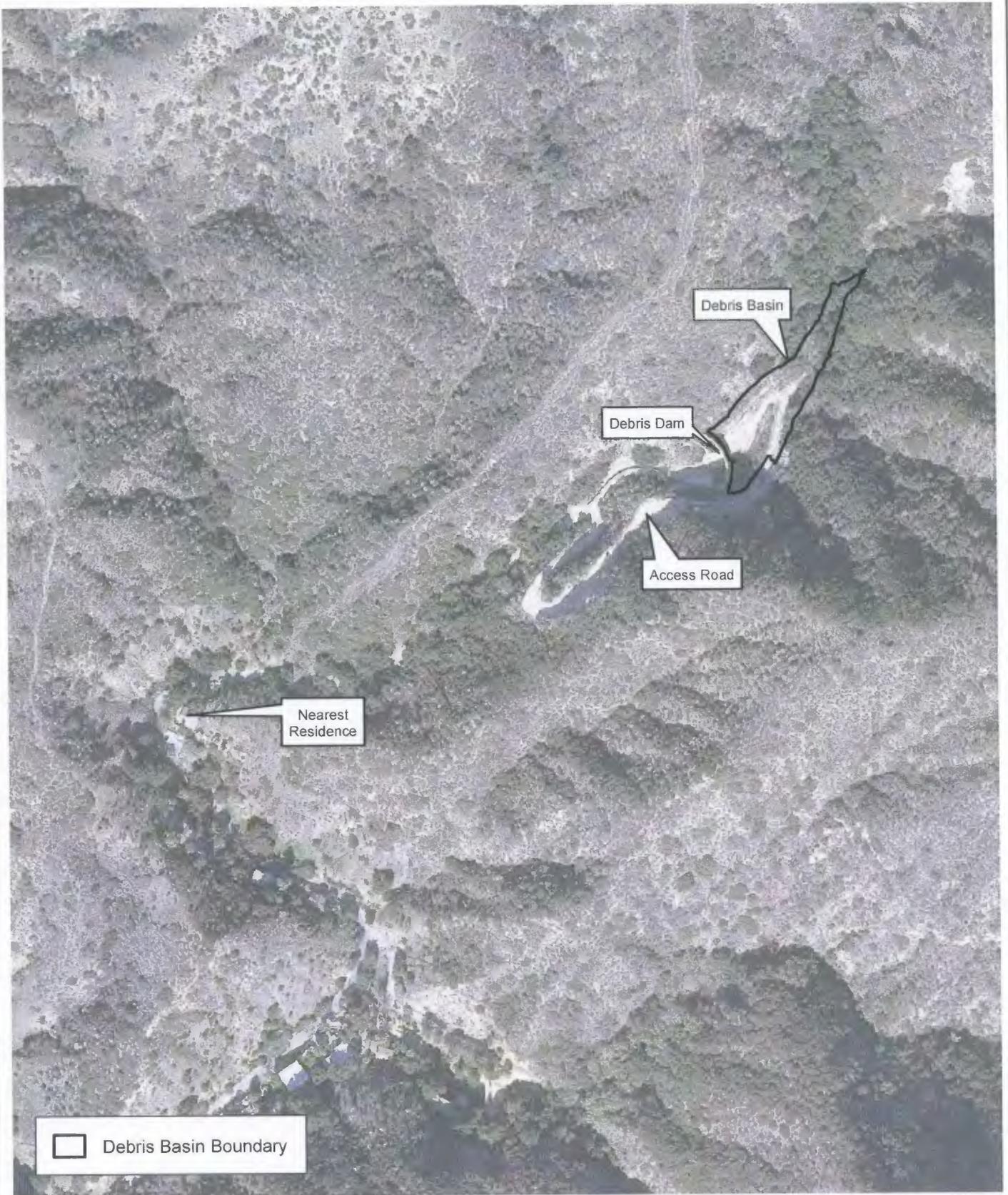
Regional Location and Local Vicinity

Exhibit 2-1

Sunset Upper Debris Basin Dam Modification Project



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Aerial Photograph

Exhibit 2-2

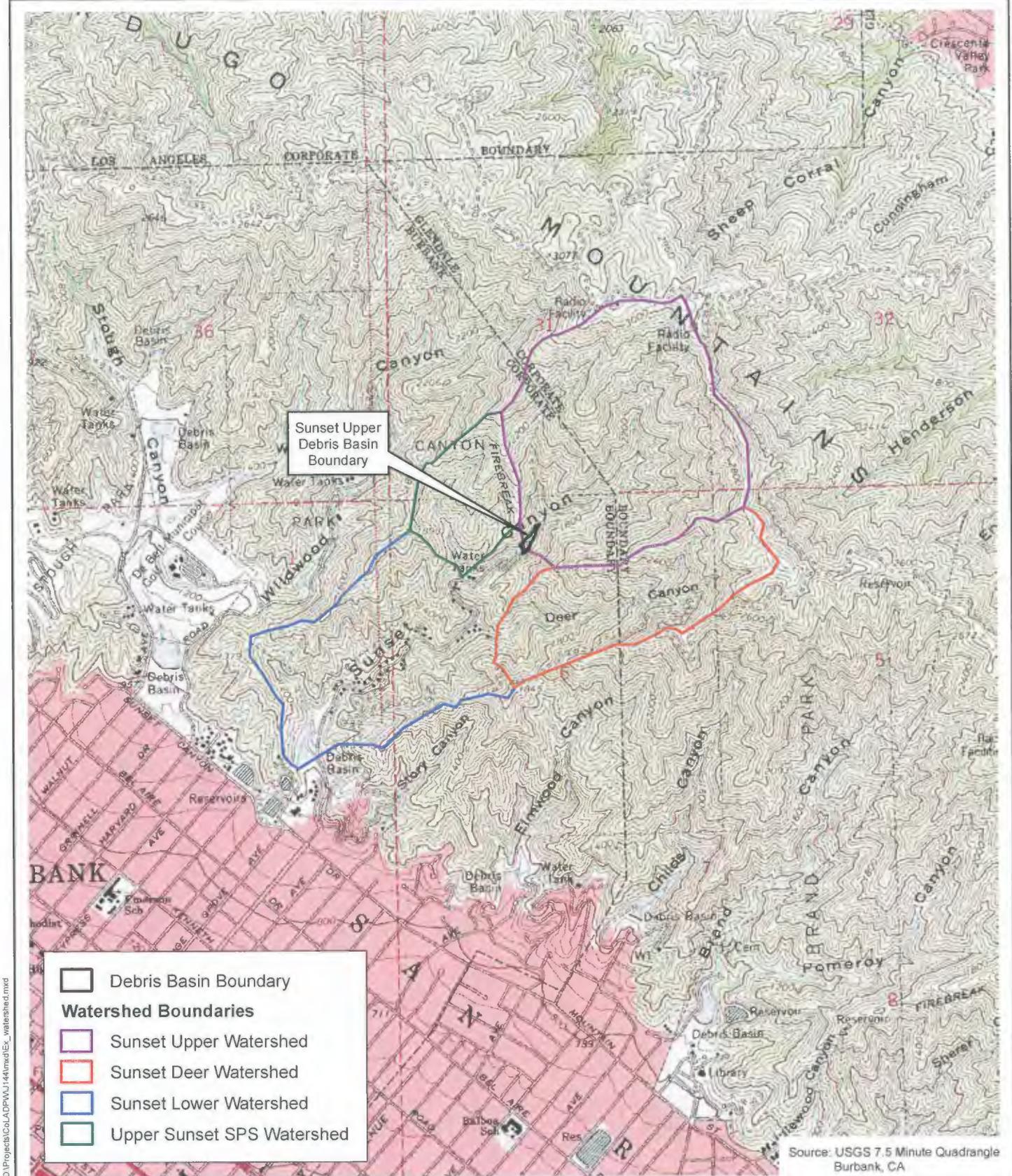
Sunset Upper Debris Basin Dam Modification Project



300 150 0 300
Feet

Bonterra
CONSULTING

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Sunset Canyon Watershed

Exhibit 2-3

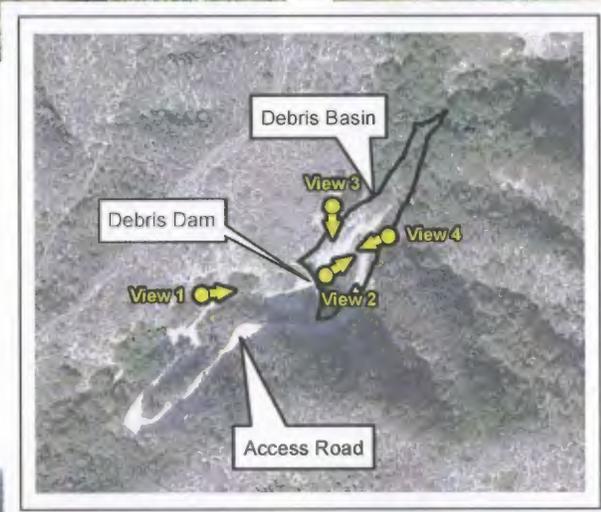
Sunset Upper Debris Basin Dam Modification Project



View 1 – Looking east at the dam face and maintenance shed from the downstream access road.



View 2 – Looking east at the debris basin from just upstream of the dam.



View 3 – Looking south at the dam and access road from the west slope of Sunset Canyon.



View 4 – Looking west at the dam face from the upstream debris basin.

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Photographs of the Site

Exhibit 2-4

Sunset Upper Debris Basin Dam Modification Project



Sunset Upper Debris Basin

The Design Debris Event (DDE)³ for the Sunset Canyon watershed as a whole has been calculated to produce as much as 63,100 cy of debris, requiring additional basin storage of 47,200 cy to contain the DDE. LACFCD records indicate an average annual debris production of approximately 1,975 cy, although the 1964–1965 storm season produced 31,413 cy of debris (excluding the volume that passed over the spillway) and involved several sediment removals during this season. This major debris flow followed the Whiting Woods Fire in March 1964 that burned the entire Sunset Canyon Watershed. The Sunset Upper Debris Basin currently has a total (100%) storage capacity of 20,000 cy.

The most recent removal of sediment and debris from this debris basin occurred in December 2005 following the Harvard Fire. Debris removal is scheduled only when the basin capacity is 25 percent full or more under unburned conditions or when a sediment entrapment basin has reached 5 percent or more of the basin's capacity and more than 20 percent of the sediment entrapment basin's watershed has burned within the previous 5 years.

The LACFCD defines two subareas within each debris basin to describe the limits of the basin and interior work areas/capacity: (1) 25% contact line/mowing contact line (i.e., 25 percent of design capacity), and (2) the 100% contact line (i.e., the design capacity). The 25% contact line delineates the portion of the debris basin that receives periodic sediment removal as needed to maintain the capacity of the basin at or below this contact line and is the portion of the debris basin that receives annual vegetation trimming and/or mowing (i.e., annual maintenance). The boundary of the County-owned property containing the debris basin generally extends outside the basin limit contact line and often includes an access road for maintenance vehicles, such as at the Project site. Exhibit 2-5, Existing Sunset Upper Debris Basin, illustrates the footprints of the existing 25% and 100% contact lines.

Topography and Drainage

As shown on Exhibit 2-3, Sunset Canyon Watershed, above, the Sunset Canyon Watershed covers approximately 1.1 square miles of steep terrain and includes four sub-watersheds: Sunset Upper, Sunset Upper SPS, Sunset Lower, and Sunset Canyon Deer Watersheds. Sunset Canyon is a northeast-to-southwest trending canyon, which starts at the ridge of the Verdugo Mountains in the City of Glendale and ends near Sunset Canyon Drive in the City of Burbank. The Sunset Upper Debris Basin Dam is located at the upper end of the canyon, with the lower segment of the canyon generally aligning with Country Club Drive and the Sunset Lower Debris Basin, located at the mouth of the canyon.

Storm water runoff in the Sunset Upper Debris Basin Watershed typically percolates into the soils behind the dam, entering an inlet pipe that conveys water past the dam for downstream release into a trapezoidal channel, then into a rectangular channel, then onto the access road, and then onto Country Club Drive as sheet flow. High flows go over the dam's spillway, along Country Club Drive, and toward the Sunset Lower Debris Basin, which is located west of the intersection of Country Club Drive and Via Montana.

Elevations in the Sunset Canyon watershed range from 3,120 feet above mean sea level (msl) in the northeastern portion of the watershed to 1,430–1,080 feet above msl at the terminus of Country Club Drive. The Sunset Upper Debris Basin Dam is located across the canyon at a ground elevation of approximately 1,575.0 feet above msl. The height of the dam is defined by

³ A DDE is defined as a debris volume caused by a 50-year rainfall frequency event that occurs over a saturated watershed with a 4-year recovery from a watershed burn.

the invert of the spillway (1,603.7 feet above msl) and the ground elevation (1,575 feet above msl). The crest parapet elevations are 1,609.5 feet above msl and 1,610.5 feet above msl.

Land Use

The Sunset Upper Debris Basin Dam is surrounded by undeveloped land, with steep side slopes to the north and south; the debris basin to the east of the dam; and the access road/Country Club Drive to the southwest of the dam. Country Club Drive serves as the drainage channel, via sheet flow, for the lower segment of the canyon and provides direct access to 44 single-family residences along this road, south of the Project site and north of Sunset Canyon Drive. A small grouping of single-family residences along the south side of Country Club Drive (which are the northernmost of the 44 residences on the access road) are the nearest sensitive receptors to the Project site. These residences are located approximately 1,200 feet southwest of the Sunset Upper Debris Basin Dam. In addition, 2 water tanks are located approximately 200 feet east of the terminus of Country Club Drive. These tanks are owned by City of Burbank Water and Power.

The Project area is designated as Mountain Reserve in the Burbank Land Use Map and is zoned Open Space in the City's Zoning Map (Burbank 2007, 1998). The Project area is proposed to be designated as Open Space under the *Burbank 2035 General Plan*, an update to the existing General Plan that is currently in progress (Burbank 2012).

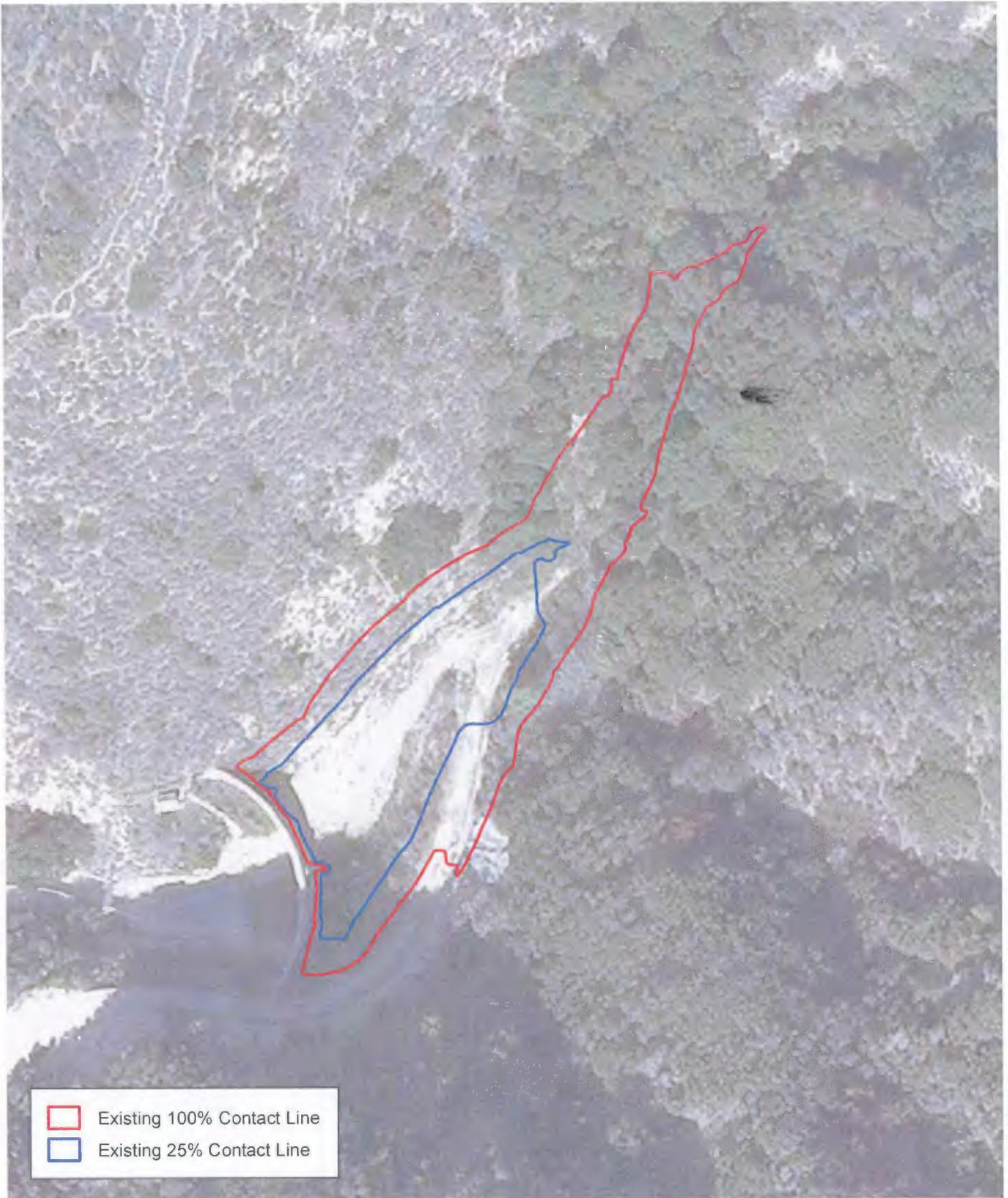
Biological Resources

Vegetation types within the Project site and surrounding areas include California sagebrush scrub, mixed chaparral, and coast live oak woodland, with disturbed and developed areas present within and near the dam and debris basin. California sagebrush scrub is found on the steep slopes adjacent to the debris basin. Coast live oak woodland occurs along the drainage below the dam and above the debris basin. Developed and disturbed areas include the debris basin bottom (subject to annual mowing); the dam structure; trapezoidal and rectangular drainage channels; gunite slopes; and existing paved and dirt access roads.

An ephemeral drainage⁴ flows from the east and northeast into the earth-bottom debris basin upstream of the dam, and follows a channel below the dam. Limited areas of vegetation and natural open space are present directly below (downstream) the dam; however, most of the channel below the dam is made of concrete.

⁴ Ephemeral drainages are typically dry, but carry runoff during rain events.

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-  Existing 100% Contact Line
-  Existing 25% Contact Line

Existing Sunset Upper Debris Basin

Exhibit 2-5

Sunset Upper Debris Basin Dam Modification Project



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SECTION 3.0 PROJECT DESCRIPTION

The proposed Sunset Upper Debris Basin Dam Modification Project (Project) involves increasing the height of the dam, which, in turn, would increase the capacity of the associated debris basin to provide enhanced flood and debris protection to downstream land uses. No improvements to the Sunset Lower Debris Basin, Sunset Canyon Deer Debris Basin, side canyons, or other flood-control facilities within the Sunset Canyon Watershed are planned as part of the Project.

3.1 PROJECT OBJECTIVES

The LACFCD's main goal is to provide additional flood and debris protection to downstream properties and residents within the Sunset Canyon Watershed. To accomplish this goal, the LACFCD is seeking to implement the following objectives with the proposed Project:

- Increase the height of the Sunset Upper Debris Basin Dam by five feet to accommodate moderate and larger size storm events,
- Reduce the amount of debris flows on Country Club Drive, and
- Decrease the potential for major property damage and personal injury within Sunset Canyon.

Therefore, the proposed Project would increase the capacity of the Sunset Upper Debris Basin and reduce, by up to 8,000 cy, the amount of debris moving from the Sunset Upper into the Sunset Lower Watershed and eventually into the Sunset Lower Debris Basin.

3.2 PROJECT COMPONENTS

3.2.1 SUNSET UPPER DEBRIS BASIN DAM MODIFICATION

Table 3-1 provides a summary of the existing and proposed conditions of the dam and debris basin, which are discussed further below.

**TABLE 3-1
PROPOSED PROJECT DATA SUMMARY**

Component	Existing	Proposed	Net Increase
Sunset Upper Debris Basin Dam			
Spillway Elevation	1,603.7 ft above msl	1,608.7 ft above msl	5.0 ft
Crest Elevations	1,609.5 and 1,610.5 ft above msl	1,614.5 ft above msl	5.0 and 4.0 ft
Sunset Upper Debris Basin (Upstream of the Dam)			
100% Contact Line Area	37,023 sf	46,025 sf	9,002 sf
100% Contact Line Volume	20,000 cy	28,000 cy	8,000 cy
25% Contact Line Area	16,168 sf	19,447 sf	3,279 sf
25% Contact Line Volume	5,000 cy	7,000 cy	2,000 cy
ft: feet; msl: mean sea level; cy: cubic yards; sf: square feet			

The Project consists of reconstructing the existing dam spillway to raise the invert elevation by 5 feet to 1,608.7 feet above msl. The crest of the dam would also be raised by 5 feet to an elevation of 1,614.5 feet above msl by constructing a parapet wall on top of the existing dam crest. The existing protective fences would be removed during construction and reinstalled, and the trash rack cage behind the spillway would be extended by five feet.

In addition, the existing access road running along the southern end of the dam would be raised by varying amounts up to 4.8 feet over a distance of approximately 104 linear feet, corresponding to an elevation increase from 1,611.0 feet above msl to up to 1,615.8 feet above msl, to match the new dam elevation. The access road modification would be attained by constructing a retaining wall to support the road embankment from its existing ground elevation up to the proposed grade. Exhibit 3-1, Proposed Access Road Modifications, and Exhibit 3-2, Proposed Dam Modifications, identifies the proposed alterations to the Sunset Upper Debris Basin Dam. The changes to the Sunset Upper Debris Basin, through increased capacity, that would result from the proposed dam modifications, are discussed further below in Section 3.2.2, Sunset Upper Debris Basin Operation with Proposed Project.

Construction and Operation of the Dam Modification

The tentative construction schedule for the proposed Project has an anticipated start date in mid-April 2014 and completion by October 2014, for an approximate 6- to 7-month construction period. Project construction would be scheduled to occur during the dry season, either in 2014 or a subsequent year if construction is delayed.

Exhibit 3-3, Construction Impact Footprint, illustrates the 29,115-square-foot (sf) (approximately 0.7 acre) footprint of potential ground disturbance during construction of the proposed dam modifications. Some construction equipment would need to be staged within the debris basin and would be limited to areas within the 25% contact line, already permitted for disturbance via annual maintenance activities. The equipment would therefore need to be driven across the bottom of the debris basin to the dam when needed. Due to the soft nature of the soil on the bottom of the basin, the equipment would likely need to be on caterpillar tracks rather than rubber tires. To accommodate the staging and movement of construction equipment, the area within the construction impact footprint would need to be mowed at the start of construction activity. As such, the initial construction phase would be site preparation, which would last approximately 1 month and result in approximately 50 cy of both alluvial debris and mowing clippings that would be removed from the Project site.

Site preparation would be followed by construction of the new spillway and parapet walls as well as slope grading for the raised access road and retaining wall. Construction of the retaining wall and access road is expected to take two to three months, and requires prior completion of the right (south) side parapet wall extension. Compacted fill would be used to raise the access road and a concrete gutter would be installed along the southern edge of the road (at the foot of the existing gunite slope). Excavated material from the site-preparation and grading operations would be stockpiled on site to be used as backfill for the access road retaining wall. Therefore, the need for imported fill, if any, would be minimal and is not expected to exceed 60 cy. The reinforced concrete retaining wall would be constructed along the northern edge of the access road. The 12- to 14-foot-wide access road would be asphalt-paved from the outer edge of the retaining wall to the gutter. Both the temporary and permanent environmental impacts associated with construction of the proposed modifications to the Sunset Upper Debris Basin Dam are addressed in this IS/MND.

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Construction Impacts

-  Permanent
-  Temporary

Construction Impact Footprint

Exhibit 3-3

Sunset Upper Debris Basin Dam Modification Project



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Operation and maintenance of the modified dam would be the same as the existing condition, as the alterations relate solely to its existing functions—increasing the dam’s capacity and related flood control capability—and would not add new functions or features. Therefore, there are no direct impacts associated with operation of the modified Sunset Upper Debris Basin Dam. However, implementation of the proposed dam modifications would indirectly result in modification of the Sunset Upper Debris Basin, that would, in turn, alter the maintenance and permitting requirements of the debris basin, as discussed further below.

3.2.2 SUNSET UPPER DEBRIS BASIN CAPACITY INCREASE

With proposed Project implementation, the Sunset Upper Debris Basin would provide the same function but would have an increased capacity of 8,000 cy, including 2,000 cy increased capacity within the 25% contact line. Any accumulated debris that exceeds the increased total (100%) capacity of 28,000 cy would flow over the dam, via the spillway, and downstream into the Sunset Lower Watershed, as it occurs in the existing condition. However, a debris overflow with the expanded debris basin capacity is only expected during large, extended storm events occurring after a wildfire has burned the entire watershed, and this combination of events occurs very infrequently. As discussed below, since the dam was constructed over 80 years ago (1929), it has overtopped only once. The proposed Project would reduce the frequency of such events even further. The long-term maintenance and permitting (i.e., operation) of the Sunset Upper Debris Basin with implementation of the proposed Project is discussed further below.

Background of Sunset Upper Debris Basin Maintenance and Permitting

Routine maintenance activities, including periodic sediment removal, have been ongoing at the Sunset Upper Debris Basin for many years. Sediment removal at the Sunset Upper Debris Basin has occurred intermittently (documented to range from once every 6 to 20 years at the 162 debris basins throughout the LACFCD). As with other debris basins, the LACFCD’s routine maintenance program for the Sunset Upper Debris Basin includes (1) annual brush clearing, tree trimming, and vegetation mowing; (2) annual entrainment channel and outlet tower clearing; (3) sediment removal; (4) access road maintenance and other appurtenances; (6) storm damage repair and restoration projects; and/or (7) exotic species eradication/control.

Resource agency permits for the ongoing maintenance of debris basins throughout the LACFCD have been obtained or are being renewed by the LACFCD under a number of master permits/agreement from the USACE, the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW).⁵ These authorizations imposed LACFCD’s cleanout policies as cleanout initiation limits. These authorizations also set the annual mowing limits to coincide with those of the 25% contact line limits. The Regional General Permit (No. SPL-2003-00411-KW) with the USACE was signed on October 15, 2009. The 401 Water Quality Certification (File No. 02-144-2008 Renewal) with the RWQCB, Los Angeles Region, was signed on October 24, 2008.

The impacts associated with ongoing maintenance activities at the Sunset Upper Debris Basin (and other debris basins in the LACFCD system) were further analyzed in the IS/MND for the Section 1605 Long-Term Streambed Alteration Agreement for the Debris Basin Maintenance Program (SCH No. 2010121010) that was prepared by the LACFCD. This IS/MND for debris basin maintenance activities was adopted by the County of Los Angeles Board of Supervisors, acting as the Board of the LACFCD, on June 14, 2011. The CDFG Section 1605 Long-Term Streambed Alteration Agreement (No. 1600-2008-0290-R5)(Section 1605 Agreement) with the

⁵ The California Department of Fish and Game (CDFG) changed its name to the California Department of Fish and Wildlife (CDFW) effective January 1, 2013.

was signed on August 15, 2011. The Section 1605 Agreement is intended to be a living document and be amended periodically to reflect new debris basins coming under LACFCD jurisdiction as well as alterations to existing debris basins.

As discussed previously, the LACFCD has also adopted a general policy that sediment removal occurs whenever a debris basin is 25 percent full or more (under unburned watershed conditions) or when it is 5 percent full or more (when 20 percent or more of the watershed has been burned in the previous five years).

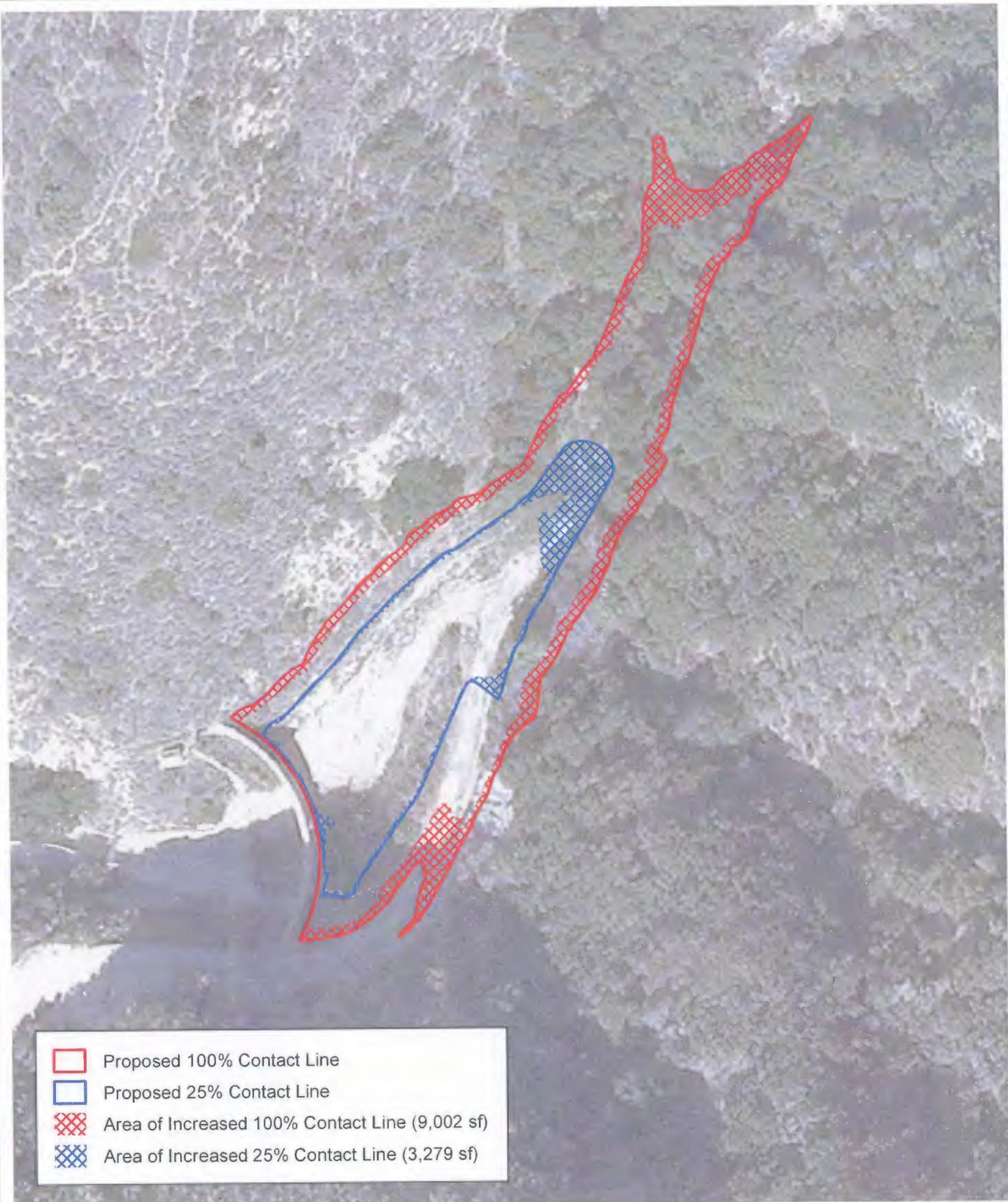
Sunset Upper Debris Basin Operation with Proposed Project

Routine maintenance activities that occur within the footprints authorized by the Section 1605 Agreement and other existing permits, as described above, will continue with the implementation of the proposed Project. Environmental impacts resulting from maintenance activities within the 25% and 100% contact line footprints authorized in the Section 1605 Agreement, as amended, will not be discussed in this IS/MND as they are not attributable to the proposed Project. Likewise, since the LACFCD has mitigated for these impacts, no further mitigation for these activities and footprints is required under the proposed Project. However, as discussed above, implementation of the Sunset Upper Debris Basin Dam's increased height would increase the capacity of the debris basin's 25%, and 100% contact lines. The increment of change in these footprints is attributable to the proposed Project and, as such, the expanded footprint is addressed in this IS/MND. Exhibit 3-4, Proposed Sunset Upper Debris Basin, illustrates the expanded 25% and 100% contact lines. It is noted that the maintenance permits focus on the "footprint" area of each debris basin's contact lines, which includes the land area encompassed by each contact line and is measured in square feet/acres, as this reflects the biological and/or jurisdictional resources on the ground (a two-dimensional area). In contrast, the volume of debris that can be contained within each debris basin's 25% and 100% contact lines includes consideration of both the footprint and the height of the debris cone (a three-dimensional area), and is therefore measured in cubic yards.

As shown in Table 3-1 above, the 100% contact line encompasses a 37,023-sf area of land behind the dam, and the 25% contact line encompasses 16,168 sf of this footprint. With proposed Project implementation, the 100% contact line would increase by 9,002 sf to 46,025 sf, along the edges of the existing contact line. Therefore, during a storm event that produces storm water and/or debris flows that are greater than the existing debris basin capacity of 20,000 cy, some or all of the additional land area of 9,002 sf would be subject to potential inundation. However, the average annual debris production at the Sunset Upper Debris Basin is 1,975 cy, or approximately 18 percent of the existing capacity of 20,000 cy (LACDPW 2007). Rain intensity and frequency, which define the flow regime upstream and downstream of the dam, would not change with the proposed Project. Therefore, in theory, the debris basin may fill to the greater engineered capacity (28,000 cy) during the largest storm events. While existing maintenance permits authorize annual maintenance activities and periodic sediment removal only within a debris basin's contact lines, they authorize entrainment channel and exotic species eradication/control up to LACFCD's property lines. This larger area (i.e., LACFCD's property) includes the increased 100% contact line area. Therefore, the only activity within the expanded 100% contact line area that is not covered in the existing permits is the highly infrequent, to unanticipated, removal of storm debris.

Similarly, with Project implementation, the 25% contact line would increase by 3,279 sf to 19,447 sf, along the edges of the existing contact line. The increase in the debris basin's 25% contact line has an associated capacity increase of 2,000 cy, and the additional 3,279 sf of land area would be subject to potential inundation. However, in contrast to the 100% contact line discussion above, it is expected that the expanded 25% contact line would eventually fill

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-  Proposed 100% Contact Line
-  Proposed 25% Contact Line
-  Area of Increased 100% Contact Line (9,002 sf)
-  Area of Increased 25% Contact Line (3,279 sf)

Proposed Sunset Upper Debris Basin

Exhibit 3-4

Sunset Upper Debris Basin Dam Modification Project



with sediment. As discussed for the 100% contact line, periodic sediment removal within the expanded 25% contact line is not covered in the existing permits. The Section 1605 Agreement and other permits related to long-term maintenance activities would require amendments subsequent to proposed Project implementation to reflect the expanded 25% and 100% contact lines.

3.3 DISCRETIONARY ACTIONS

Approval of the proposed Sunset Upper Debris Basin Dam Modification Project, including environmental clearance and the use of LACFCD funds, would be needed from the County of Los Angeles Board of Supervisors (acting as the Board of the LACFCD) prior to Project implementation. In addition, construction of the proposed Project would require the following permits from various agencies, as identified:

- A new Section 404 permit from the USACE for disturbance of “waters of the U.S.”, including riparian areas.
- A new Section 401 Water Quality Certification from the RWQCB for disturbance of “waters of the U.S.”.
- A new Section 1600 Streambed Alteration Agreement from the CDFW for disturbance of “waters of the State” and streambed.

In addition, the existing debris basin maintenance permits, listed above, would require an amendment to incorporate the expansion of the 100% contact line that may be subject to inundation and debris deposition during major storm events and the expansion of the 25% contact line in which occasional sediment removal occur. In turn, the County would need to abide with the conditions of approval of the permits, as in the existing condition.

Since the Sunset Upper Debris Basin Dam has less than 15 acre-feet (af) of existing capacity (9.9 af) and future capacity (14.8 af) with the proposed Project, it is not considered a dam that is subject to the regulations and permit requirements of the California Department of Water Resources (DWR) Division of Safety of Dams (DSOD), which specifies the 15 af capacity for dams that are subject to its requirements. Also, while the Sunset Upper Debris Basin facility is located within the jurisdictional boundaries of the City of Burbank, the dam, the debris basin, and portion of the access road south of the dam are located on County-owned land. As such, no permits are required from the City of Burbank for activities on LACFCD property. The LACFCD retains an ingress/egress easement from the City for the paved access road from Country Club Drive to LACFCD's property. No further permits are needed from the City of Burbank for LACFCD's use of this road. Also, although the Sunset Upper Debris Basin Dam is located within a Significant Ecological Area (SEA), the facility is not subject to jurisdiction by the County of Los Angeles Department of Regional Planning because the agency has no jurisdiction within the City of Burbank. The City of Burbank has no regulations or ordinances regarding SEAs.

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SECTION 4.0 ENVIRONMENTAL ANALYSIS

This section includes the completed environmental checklist form, which is used to assist in evaluating the potential environmental impacts of the proposed Project. The checklist form identifies the degree of impacts from the proposed Project on various environmental issues; substantiation and clarification for each checklist response is provided under each issue.

1. **Project Title:** Sunset Upper Debris Basin Dam Modification
2. **Lead Agency Name and Address:** Los Angeles County
Flood Control District
900 South Fremont Avenue, 2nd Floor
Alhambra, California 91803
3. **Contact Person:** Ms. Grace Yu
gyu@dpw.lacounty.gov
4. **Project Location:** Sunset Upper Debris Basin Dam, Sunset Canyon,
City of Burbank, County of Los Angeles
5. **Project Sponsor's Name and Address:** County of Los Angeles
Department of Public Works
900 South Fremont Avenue, 2nd Floor
Alhambra, California 91803
6. **General Plan Designation:** Mountain Reserve
7. **Zoning:** Open Space (OS)
8. **Description of the Project:** The County of Los Angeles Department of Public Works (the administrating entity for the Los Angeles County Flood Control District [LACFCD]) is proposing to increase the height of the parapet walls and spillway of the Sunset Upper Debris Basin Dam and to raise the elevation of LACFCD's access road running across the southern end of the dam. Implementation of the dam modifications would increase the capacity of the Sunset Upper Debris Basin.
9. **Surrounding Land Uses and Setting:** The Sunset Upper Debris Basin Dam is located northeast of the northern terminus of Country Club Drive, and is surrounded by undeveloped hillside areas. A small grouping of single-family residences along the south side of Country Club Drive, the nearest sensitive receptors, is located approximately 1,200 feet southwest of the Sunset Upper Debris Basin Dam. There are additional homes downstream of the site, with a total of 44 homes along Country Club Drive between Sunset Upper Debris Basin and Sunset Lower Debris Basin.
10. **Other Public Agencies whose Approval is Required:**
 - U.S. Army Corps of Engineers (USACE)
 - Los Angeles Regional Water Quality Control Board (RWQCB)
 - California Department of Fish and Wildlife (CDFW)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated on the following pages.

- | | |
|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources |
| <input type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Biological Resources |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology and Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities and Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION:

On the basis of this initial evaluation:

- I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Christopher Stone
Signature of Lead Agency Representative
Christopher Stone
Printed name

March 4, 2013
Date
LACDPW
Agency

4.1 <u>AESTHETICS</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.1.1 ENVIRONMENTAL SETTING

The Sunset Upper Debris Basin Dam is located in the City of Burbank, within the Verdugo Mountains. A concrete arch dam has been constructed across the upper section of Sunset Canyon, with a trapezoidal channel, drainage channel, access road, and a maintenance shed downstream of the dam. The access road also winds up to cross the southern end of the dam and allows vehicles to reach the debris basin upstream of the dam. The existing dam, access road, and debris basin are shown in Exhibit 2-3, Sunset Upper Debris Basin Dam Site Photographs. The Project site is bound by the steep side slopes of Sunset Canyon and other canyons and undeveloped land to the north, west, south, and east. Single-family residences are located approximately 1,200 feet downstream of the dam along Country Club Drive. The Verdugo Mountains define the northeastern section of Burbank and provide scenic views from the City's urban areas. However, the debris basin and dam are not visible to adjacent developments due to their location at the canyon bottom.

The nearest eligible State Scenic Highway is the State Route (SR) 210 freeway, located approximately 2.5 miles north of the dam (Caltrans 2007). This freeway is located on the other side of the Verdugo Mountains and does not have views of Sunset Canyon.

4.1.2 IMPACT ANALYSIS

a, c) Less Than Significant Impact

The proposed Project would raise the height of the dam spillway and parapet walls; it would also raise a section of the access road. The raised spillway and parapet walls would be visible from the access road but not from Country Club Drive or other nearby public roadways.

The existing visual character of the Project site would be affected by construction activities, including views of construction equipment and vehicles, staging areas, and disturbed slopes. These construction impacts would be short-term and temporary. Changes in views due to the higher spillway and parapet walls and the raised roadway at the dam would not be visible to people, except for maintenance personnel. Similarly, the deposition of sediment and debris within the expanded 25% contact line would only be visible to LACFCD and City maintenance personnel. Water and sediment within the expanded debris basin limits would also not be visible to the public during the time when the debris basin is filled to capacity after a major storm.

b) No Impact

Sunset Canyon is not adjacent to or visible from any officially designated or eligible State Scenic Highway. Therefore, the proposed Project would not affect scenic resources along a scenic highway and no impact would occur.

d) No Impact

The proposed Project would not include the installation of lighting. No structures would be created that would generate new sources of light or glare; therefore, Project would have no impact on lighting levels in the area.

4.1.3 MITIGATION PROGRAM

Regulatory Requirements

None

Mitigation Measures

The proposed Project would not result in potentially significant adverse impacts related to aesthetics; therefore, no mitigation is required.

4.2 <u>AGRICULTURE AND FOREST RESOURCES</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.2.1 ENVIRONMENTAL SETTING

The Sunset Upper Debris Basin Dam is located in the Verdugo Mountains and is not in agricultural use. Also, there are no agricultural uses surrounding the Project site. The California Department of Conservation administers the Farmland Mapping and Monitoring Program (FMMP) pursuant to Section 65570 of the *California Government Code*. Due to the predominance of urban development in the southern and central sections of Los Angeles County, this area was not included in the mapping effort by the FMMP (FMMP 2009).

The Sunset Upper Debris Basin supports native trees, but the area is not used for growing or harvesting timber. Therefore, the Project site is not considered timberland. The Project site is not designated as Forests in the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (CALFIRE 2003). The Angeles National Forest is located approximately eight miles north of the site.

4.2.2 IMPACT ANALYSIS

a, b, e) No Impact

The proposed Project would not convert agricultural land to non-agricultural uses because there are no agricultural activities or FMMP-designated Farmland on or near the Sunset Upper Debris Basin Dam. Additionally, Sunset Canyon and the surrounding areas are not under a Williamson Act Contract. The proposed Project would not cause changes in the environment that could indirectly result in the conversion of farmland to non-agricultural use because the Project would not be growth-inducing, nor would it hinder any future agricultural use of adjacent lands.

c, d) No Impact

Since the Project area is not designated as forest land or zoned for timberland production, no impact on forest land or timberland would occur with the proposed Project. The proposed Project would not affect the Angeles National Forest, which is located eight miles to the north. No conversion of forest land or on forest resources would occur with the Project, and there would be no impact.

4.2.3 MITIGATION PROGRAM

Regulatory Requirements

None

Mitigation Measures

No adverse impacts related to agricultural or forest resources would occur; therefore, no mitigation is required.

4.3 <u>AIR QUALITY</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.3.1 ENVIRONMENTAL SETTING

The Project site is located within the Los Angeles County portion of the South Coast Air Basin (SoCAB) and is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Both the State of California (State) and the U.S. Environmental Protection Agency (USEPA) have established health-based Ambient Air Quality Standards (AAQS) for air pollutants, which are known as “criteria pollutants”. The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety.

The AAQS for ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), inhalable particulate matter with a diameter of 10 microns or less (PM₁₀), fine particulate matter with a diameter of 2.5 microns or less (PM_{2.5}), and lead are shown in Table 4-1.

Regional air quality is defined by whether the area has attained or not attained State and federal air quality standards, as determined by air quality data from various monitoring stations. Areas that are considered “nonattainment” are required to prepare plans and implement measures that will bring the region into “attainment”. When an area has been reclassified from nonattainment to attainment for a federal standard, the status is identified as “maintenance”, and there must be a plan and measures established that will keep the region in attainment for the following ten years.

For the California Air Resources Board (CARB), an “Unclassified” designation indicates that the air quality data for the area are incomplete and do not support a designation of attainment or nonattainment. Table 4-2 summarizes the attainment status of the SoCAB for the criteria pollutants.

**TABLE 4-1
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary ^a	Secondary ^b
O ₃	1 Hour	0.09 ppm (180 µg/m ³)	–	–
	8 Hour	0.070 ppm (137 µg/m ³)	0.075 ppm (147 µg/m ³)	Same as Primary
PM ₁₀	24 Hour	50 µg/m ³	150 µg/m ³	Same as Primary
	AAM	20 µg/m ³	–	Same as Primary
PM _{2.5}	24 Hour	–	35 µg/m ³	Same as Primary
	AAM	12 µg/m ³	15.0 µg/m ³	Same as Primary
CO	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	–
	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)	–	–
NO ₂	AAM	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary
	1 Hour	0.18 ppm (339 µg/m ³)	0.100 ppm (188 µg/m ³)	–
SO ₂	24 Hour	0.04 ppm (105 µg/m ³)	–	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m ³)
	1 Hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)	–
Lead	30-day Avg.	1.5 µg/m ³	–	–
	Calendar Quarter	–	1.5 µg/m ³	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m ³	
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)		

O₃: ozone; ppm: parts per million; µg/m³:micrograms per cubic meter; PM₁₀: large particulate matter; AAM: Annual Arithmetic Mean; PM_{2.5}: fine particulate matter; CO: carbon monoxide; mg/m³: milligrams per cubic meter; NO₂: nitrogen dioxide; SO₂: sulfur dioxide; km: kilometer. –: No Standard;

^a *National Primary Standards*: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

^b *National Secondary Standards*: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Note: More detailed information in the data presented in this table can be found at the CARB website (www.arb.ca.gov).

Source: CARB 2012a.

**TABLE 4-2
DESIGNATIONS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN**

Pollutant	State	Federal
O ₃ (1-hour)	Nonattainment	No Standard
O ₃ (8-hour)		Extreme Nonattainment
PM ₁₀	Nonattainment	Serious Nonattainment
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO ₂	Nonattainment	Attainment/Maintenance
SO ₂	Attainment	Attainment
Lead	Nonattainment/Attainment ^a	Nonattainment/Attainment ^d
All others	Attainment/Unclassified	No Standards
<p>O₃: ozone; PM₁₀: respirable particulate matter with a diameter of 10 microns or less; PM_{2.5}: fine particulate matter with a diameter of 2.5 microns or less; CO: carbon monoxide; NO₂: nitrogen dioxide; SO₂: sulfur dioxide.</p> <p>^a Los Angeles County was reclassified from attainment to nonattainment for lead in 2010; the remainder of the SoCAB is in attainment of the State and federal standards.</p> <p>Source: CARB 2012b.</p>		

Existing emissions from Sunset Upper Debris Basin Dam operations are generated by vehicles traveling to and from the site for maintenance and inspection activities, and the construction equipment used for occasional sediment removal activities.

4.3.2 IMPACT ANALYSIS

With project implementation, the Sunset Upper Debris Basin Dam will have the same flood-control functions as in the existing condition, but the debris basin would have a greater capacity for sediment retention. As previously discussed, changes in operational activities due to Project implementation, including maintenance and sediment removal, would be negligible and potentially reduced (i.e., less frequent cleanouts) due to the increase in the capacity within the 25% contact line. The less frequent cleanouts would take a greater number of days to complete, commensurate with a capacity increase of 2,000 cy, but not a greater number of trucks per day. The number of trucks exporting sediment per day during a debris basin cleanout is essentially static, as it is constrained by the rate at which each queued haul truck can be filled with sediment, arrive at the designated sediment placement site, be emptied, and return to that basin. The maximum capacity increase of 2,000 cy within the 25% contact line equates to an additional 100 truck trips with 20-cy trucks or 200 truck trips with 10-cy trucks over the course of a single sediment-removal event. However, the air quality impacts are assessed based on maximum daily emissions. As noted above, the daily operations, and therefore daily emissions, would remain the same with the proposed Project. Therefore, potential air quality impacts of the proposed Project would be confined to the construction phase of the proposed dam modifications, and are quantified below.

a) No Impact

The SCAQMD *Final 2007 Air Quality Management Plan* (AQMP) is the air quality plan adopted by the SCAQMD on June 1, 2007. The 2007 AQMP is an update to the 2003 AQMP and incorporates new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. CARB approved the plan when the State Strategy for the State Implementation Plan (SIP) was adopted on September 27, 2007. The Draft SIP has been submitted to the USEPA for

review and approval. Until such time that the USEPA approves the SIP, the 2003 AQMP will remain in effect for federal Clean Air Act (CAA) conformity analysis. However, for CEQA analysis, projects must also be considered consistent with the requirements of the 2007 AQMP.

The main purpose of an AQMP is to bring an area into compliance with the requirements of federal and State air quality standards. For a project to be consistent with the AQMP, the pollutants emitted from the project should not exceed the SCAQMD CEQA air quality significance thresholds or cause a significant impact on air quality. As shown in Response 4.3.2 (b) below, pollutant emissions from the proposed Project would be substantially less than the SCAQMD thresholds and would not result in a significant impact. Further, the proposed Project would not result in development that may have not been anticipated in the AQMP. No conflict with the AQMP would occur with the proposed Project.

b) Less Than Significant Impact

Criteria pollutant emissions would occur during construction from the operation of construction equipment; the generation of fugitive dust from grading and earth-moving activities; and from the operation of vehicles driven to and from the site by construction workers and for the removal of debris and import of construction materials.

Project-generated construction emissions were estimated using the California Emission Estimator Model (CalEEMod) Version 2011.1.1 computer program (SCAQMD 2011b). CalEEMod is designed to model construction emissions for land development projects and allows for the input of project- and County-specific information. The CalEEMod model input was based on construction assumptions described above and in Section 3.2.1, Sunset Upper Debris Basin Dam Modification.

Where specific information was not known, engineering judgment and default CalEEMod settings and parameters were used. The model inputs include estimated equipment use (such as dozers and loaders) for each construction phase and the duration of each phase. The model also includes dust-control measures corresponding to the requirements of SCAQMD Rule 403, Fugitive Dust (SCAQMD 1976) (RR 4.3-1).

Table 4-3 presents the estimated maximum daily emissions for the proposed Project construction, and compares the estimated emissions with the SCAQMD daily mass emission thresholds. CalEEMod model input and output data is included in Appendix A.

**TABLE 4-3
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS
(POUNDS/DAY)**

Year	VOC	NOx	CO	SOx	PM10	PM2.5
2012	4	34	21	<0.5	4	3
<i>SCAQMD Thresholds</i>	75	100	550	150	150	55
<i>Exceeds Threshold?</i>	No	No	No	No	No	No
<small>VOC: volatile organic compounds; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM₁₀: respirable particulate matter with a diameter of 10 microns or less; PM_{2.5}: fine particulate matter with a diameter of 2.5 microns or less.</small>						
<small>Source: SCAQMD 2011a (thresholds). CalEEMod data in Appendix A.</small>						

As shown in Table 4-3, construction-related emissions generated by the proposed Project would be less than the SCAQMD regional thresholds of significance. Therefore, construction emissions would be less than significant and Project-specific mitigation is not required.

As discussed above, the rate of sediment deposition in the debris basin would not change with the Project. While the debris basin would have a larger volume of sediment that would require removal due to the increased capacity of the 25% contact line, the time period between sediment removal activities would be longer. Therefore, the frequency of sediment removal would decrease, but greater amounts of sediment would be removed each time (approximately 2,000 cy more within the 25% contact line). As discussed above, the daily rate of sediment removal would not change; that is, the same numbers of equipment and truck trips would be used daily, but would be required for more days. Therefore, no increase, or decrease, in daily pollutant emissions associated with periodic sediment removal at the debris basin would occur.

Subsequent to an infrequent large storm event, sediment removal would also occur within the larger 100% full limit, with up to 8,000 cy of additional capacity. Routine sediment removal is completed by a backhoe or excavator transferring the sediment into a dump truck, which is used to transport the sediment from the debris basin to a designated sediment placement site (SPS). Sediment removal following large storm events may require more construction equipment than for routine sediment removals. It would be speculative to assume that debris removal from the 100% contact line would result in more or less pollutant emissions than removal of the same debris that, without the proposed Project, would have to be removed from roads and properties that would have otherwise been inundated from overflow of the existing basin. Also, based on the average annual debris production at the Sunset Upper Debris Basin of 1,975 cy and the fact there has been a single overflow event since the dam's construction in 1929, the possibility of a major storm event capable of inundating the expanded 100% contact line would be a highly infrequent occurrence. Therefore, the impact to regional air quality would be less than significant.

c) Less than Significant Impact

The South Coast Air Basin is a nonattainment area for lead,⁶ O₃, NO₂, PM₁₀, and PM_{2.5}. With the exception of lead, the proposed Project would generate these pollutants during construction. However, as shown in Table 4-3 above, construction emissions would not approach the SCAQMD CEQA significance thresholds. A potential for short-term cumulative impacts related to air quality could occur if Project construction and nearby construction activities were to occur simultaneously. In particular, with respect to local impacts, cumulative construction particulate impacts are considered when projects are located within a few hundred yards of each other. There are no anticipated construction projects within a few hundred yards of the Project site, since the surrounding area consists of undeveloped land and open space in the Verdugo Mountains. Therefore, construction emissions of nonattainment pollutants would not be cumulatively considerable and Project impacts would be less than significant.

As stated above, sediment removal would occur with decreased frequency but with greater amounts of sediment, and the daily rate of removal is not anticipated to change. Therefore, there would be no impact of Project's long-term cumulative contribution to the air quality violations in the South Coast Air Basin.

d) Less than Significant Impact

Exposure of sensitive receptors is addressed for three situations: CO hotspots; diesel exhaust emissions; and local emissions of NO_x, CO, PM₁₀ and PM_{2.5}. The proposed Project would raise the elevation of the access road crossing the dam, but would not permanently affect access on public roadways. Vehicle trips to the Project site during construction would be limited to worker

⁶ In general, an analysis of lead is limited to projects that emit significant quantities of the pollutant (e.g., battery manufacturers and lead smelters) and is not undertaken for infrastructure development projects.

trips and trucks. These vehicle trips would be limited in number and would occur over a short-term, finite period, and therefore, would not cause or exacerbate severe congestion at major signalized intersections that could result in CO concentrations exceeding State or federal standards at nearby sensitive receptors.

Construction of the Project would result in short-term diesel exhaust emissions from on-site heavy-duty equipment. CARB identified particulate exhaust emissions from diesel-fueled engines (diesel PM) as a toxic air contaminant (TAC) in 1998. Additionally, construction of the Project would result in the generation of diesel PM emissions from the use of on-road diesel equipment used to bring building materials to and from the Project site.

Exposure is a combination of the emissions rate and the exposure time, with exposures calculated over periods of 9 to 70 years. The proposed Project would utilize a limited number of diesel equipment, and construction would occur for only six months, rather than years. Also, the use of off-road, heavy-duty diesel equipment would be temporary, and diesel PM has highly dispersive properties. The nearest receptors to the Sunset Upper Debris Basin Dam site are residences located approximately 1,200 feet to the southwest. Therefore, construction-related emissions of TACs from the proposed Project would not expose sensitive receptors to substantial emissions of TACs. Table 4-3 above shows that the maximum daily construction emissions would be substantially less than the SCAQMD thresholds. As pollutant concentrations dissipate with distance, the relatively low emission levels during Project construction would not result in significant adverse impacts.

As discussed above, the periodic removal of accumulated sediment within the expanded 25% contact line would occur less frequently, but would take a greater number of days to complete, commensurate with a capacity increase of 2,000 cy. However, as discussed, the daily rate of sediment removal would not change; that is, the same numbers of equipment and truck trips would be used. Therefore, daily emissions would remain the same with the proposed Project, including diesel exhaust emissions; local emissions of NO_x, CO, PM₁₀, and PM_{2.5}; and contribution to CO hotspots. There would be less than significant impacts related to substantial pollutant concentrations during construction of the proposed Project, and no increase or decrease in emissions during long-term operation of the debris basin.

e) Less than Significant Impact

The debris basin and dam do not generate objectionable odors generally associated with agricultural activities; the handling of trash; the generation or treatment of sewage; or the use or generation of chemicals, food processing, or other activities that generate odors.

Diesel exhaust fumes would be generated by equipment during construction site preparation; construction activities; continued debris basin maintenance activities; and associated truck passbys along Country Club Drive. Diesel fumes from equipment working on the debris dam and in the debris basin would result in odors that may be perceptible in the immediate vicinity of the Project site, but there are no employees stationed at or near the site and no residences are located adjacent to the site. Due to the majority of diesel equipment staying at the Project site during construction of the proposed dam modifications, diesel odors during construction would not be objectionable because of the relatively small magnitude and short duration of construction. Asphalt paving of the access road would also not cause any objectionable odors due to the small magnitude and short duration, as well as distance to the nearest residents. Therefore, odor impacts related to Project construction would be less than significant. Since the Project would not result in a greater number of trucks per day for periodic sediment removal, odor from diesel exhaust fumes associated with the greater debris volumes within the 25% contact line would be less than significant.

4.3.3 MITIGATION PROGRAM

Regulatory Requirements

RR 4.3-1 The South Coast Air Quality Management District's (SCAQMD's) Rule 403, Fugitive Dust, requires the implementation of best available control measures (BACM) for any activity or man-made condition capable of generating fugitive dust, including but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement. The BACMs include soil stabilization; watering of surface soils and crushed materials; covering hauls or provision of freeboard; track-out prevention; and limits on vehicle speeds and wind barriers, among others. Compliance with this Rule will result in a reduction in short-term particulate pollutant emissions. During construction and sediment-removal activities, Project contractors shall comply with SCAQMD Rule 403. The Los Angeles County Flood Control District (LACFCD) shall include this RR as notes in the Contractor Specifications. Because the Project area is less than 50 acres and the volume of debris removal is less than 5,000 cubic yards (cy), construction activities are not considered a "large operation" under Rule 403. Therefore, submittal of a Large Operation Notification to the SCAQMD or implementation of contingency control measures for large operations are not required.

Mitigation Measures

Project implementation would not result in significant impacts related to air quality; therefore, no mitigation is required. Compliance with SCAQMD Rule 403 is required, but is not necessary to avoid a potentially significant adverse impact.

4.4 <u>BIOLOGICAL RESOURCES</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.4.1 ENVIRONMENTAL SETTING

A Biological Reconnaissance Survey was conducted by BonTerra Consulting for Sunset Canyon in late 2007 for use in the Sunset Canyon Debris Control Study (January 2008). A Jurisdictional Delineation was then prepared by BonTerra Consulting to identify jurisdictional resources and the possible need for permits (February 2008). In addition, a Coastal California Gnatcatcher Survey was performed in March and April 2008 (June 2008), and Special Status Plant Surveys were conducted in 2008 (September 2008). An updated reconnaissance survey was performed in June 2011 to determine if existing conditions at the Sunset Upper Debris Basin Dam were similar to the conditions previously observed during the 2008 surveys. The findings of the most recent reconnaissance survey (January 2013) are provided in Appendix B and are summarized below.

Vegetation

Vegetation types in the Sunset Upper Debris Basin Dam and surrounding areas include California sagebrush scrub, mixed chaparral, and coast live oak woodland with disturbed and developed areas present within and near the dam and debris basin (see Exhibit 4-1, Existing Vegetation at Sunset Upper Debris Basin Dam).

California sagebrush scrub is found on the steep slopes adjacent to the debris basin. It also intergrades, in a patchy distribution, with chaparral throughout the rest of the Project area. This vegetation type is dominated by California sagebrush (*Artemisia californica*); other common species present include California buckwheat (*Eriogonum fasciculatum*), deerweed (*Lotus scoparius*), white sage (*Salvia apiana*), Our Lord's candle (*Yucca whipplei*), and laurel sumac (*Malosma laurina*).

Mixed chaparral covers the majority of the survey area, varying in density based on aspect and topography. This vegetation type is dominated by chamise (*Adenostoma fasciculatum*), toyon (*Heteromeles arbutifolia*), California coffeeberry (*Rhamnus californica*), and laurel sumac. Other common species present include elderberry (*Sambucus mexicana*), holly-leaf cherry (*Prunus ilicifolia*), lemonadeberry (*Rhus integrifolia*), hoaryleaf ceanothus (*Ceanothus crassifolius*), mountain mahogany (*Cercocarpus betuloides*), and black sage (*Salvia mellifera*).

Coast live oak woodland occurs above the debris basin and along the drainage below the dam; it is dominated by coast live oak (*Quercus agrifolia*). Other common species present include red willow (*Salix laevigata*), mule fat (*Baccharis salicifolia*), western poison oak (*Toxicodendron diversilobum*), mugwort (*Artemisia douglasiana*), and California blackberry (*Rubus ursinus*). Additional occasional species include western sycamore (*Platanus racemosa*), bush monkeyflower (*Mimulus aurantiacus*), Southern California black walnut (*Juglans californica*), California brickellbush (*Brickellia californica*), and the scrub and chaparral species listed above.

Already developed areas include all paved surfaces, concrete-lined channels, and other structures associated with the access road, drainage channels, gunite slopes, dam, stairs, and maintenance shed. Already disturbed areas include the debris basin bottom, dirt roads, fire breaks, and other mechanically disturbed areas that generally lack vegetation.

Wildlife

Amphibians require moisture for at least a portion of their life cycle and many require standing or flowing water for reproduction. Although no amphibians were observed during the 2011 survey, native amphibian species such as the western toad (*Bufo boreas*) and Pacific treefrog (*Hyla regilla*) are expected to occur. Other native amphibian species that may occur include the black-bellied slender salamander (*Batrachoseps nigriventris*) and California treefrog (*Hyla cadaverina*).

Diversity and abundance of reptiles typically varies with vegetation type and substrate characteristics. The western fence lizard (*Sceloporus occidentalis*) and side-blotched lizard (*Uta stansburiana*) were observed during the survey. Other native reptile species that are expected to occur include western skink (*Eumeces skiltonianus*), southern alligator lizard (*Elgaria multicarinata*), gopher snake (*Pituophis catenifer*), coachwhip (*Masticophis flagellum*), common kingsnake (*Lampropeltis getula*), and western rattlesnake (*Crotalus viridis*).

Birds utilize nearly all vegetation types with greater variety and higher densities occurring in particularly valuable vegetation types. Riparian habitats provide food, water, and cover for birds throughout the year. These habitats also provide breeding habitat for a wide variety of species. Bird species, both native and non-native, observed during the survey include the red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), western scrub-jay (*Aphelocoma californica*), wrenit (*Chamaea fasciata*), northern rough-winged swallow (*Stelgidopteryx serripennis*), spotted towhee (*Pipilo maculatus*), California towhee (*Melospiza [Pipilo] crissalis*), house finch (*Carpodacus mexicanus*), and American goldfinch (*Spinus [Carduelis] tristis*). Bird species observed during previous surveys (in 2008) that would be expected to occur include the mourning dove (*Zenaidura macroura*), northern flicker (*Colaptes auratus*), black phoebe (*Sayornis nigricans*), common raven (*Corvus corax*), oak titmouse (*Baeolophus inornatus*), bushtit (*Psaltriparus minimus*), Bewick's wren (*Thryomanes bewickii*), common yellowthroat (*Geothlypis trichas*), song sparrow (*Melospiza melodia*), and lesser goldfinch (*Spinus [Carduelis] psaltria*).

Mammal species, both native and non-native, expected to occur include the following small mammal species: desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), and Botta's pocket gopher (*Thomomys bottae*). A variety of bat species are expected to occur as well, including the long-legged myotis (*Myotis volans*), California myotis (*Myotis californicus*), western pipistrelle (*Pipistrellus hesperus*), big brown bat (*Eptesicus fuscus*), hoary bat (*Lasiurus cinereus*), and Brazilian free-tailed bat (*Tadarida brasiliensis*). Medium and large-sized mammals expected to occur include the raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), coyote (*Canis latrans*), bobcat (*Lynx rufous*), and mountain lion (*Puma [Felis] concolor*).

Significant Ecological Area No. 40 – Verdugo Mountains

The Project is located in an area designated by the County of Los Angeles as the Verdugo Hills Significant Ecological Area (SEA), established in 1976. However, the SEA is entirely within the cities of Glendale, Burbank, and Los Angeles. Therefore, the County's SEA program, and associated Significant Ecological Area Technical Advisory Committee (SEATAC) review process, is not applicable to the Verdugo Hills SEA.

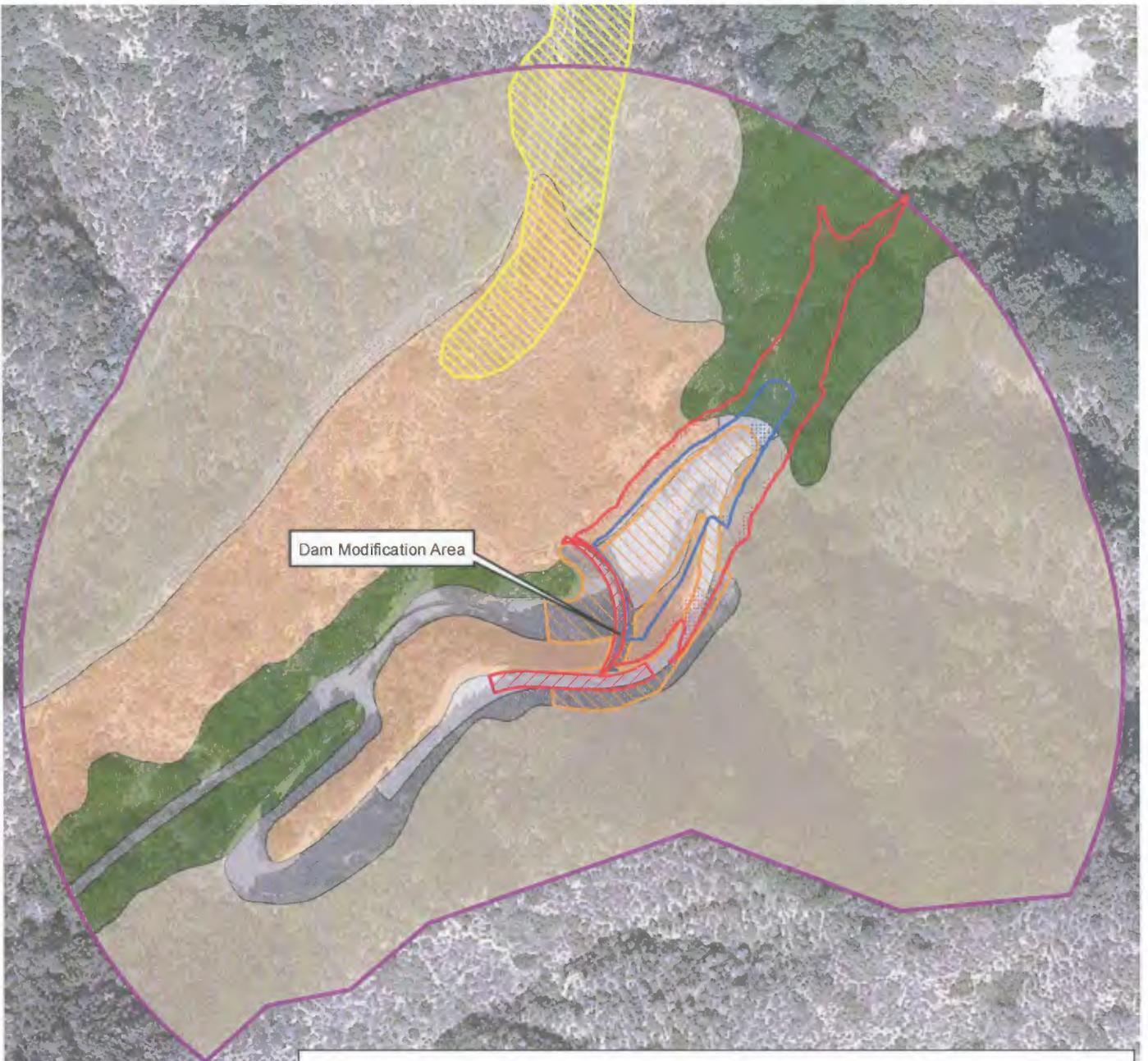
4.4.2 IMPACT ANALYSIS

a, b) Less than Significant with Mitigation

Vegetation

Construction of the proposed dam modifications will occur on existing disturbed and developed areas (i.e., dam, access road, and gunite slopes) and within the 16,168-sf area (approximately 0.37 acre) below the 25% contact line, which is permitted for disturbance via an existing long-term maintenance agreement. Specifically, construction of the proposed dam modifications would involve a total impact footprint of 29,115 sf (approximately 0.7 acre). The construction footprint includes 24,579 sf of temporary impact areas (e.g., construction staging, equipment operations) and 4,536 sf of permanent impact areas (e.g., footprint of additional dam and access road features). Disturbed and developed areas are considered to have no to low biological value to wildlife and, as such, impacts on these areas would be considered less than significant. Vegetation types mapped below the 25% contact line are considered impacted via ongoing annual debris basin maintenance activities, and have been mitigated under the 2011 Section 1605 Agreement with CDFG. There would be no vegetation removal outside the 25% contact line as part of project construction. Therefore, there would be no additional impacts to vegetation resulting from construction of the proposed dam modifications and no mitigation would be required.

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	2011 Study Area	Debris Basin Contours		Proposed 100% Contact Line
	Plummer's Mariposa Lily Location		Proposed 25% Contact Line	
Vegetation Types			Area of Increased 100% Contact Line (9,002sf)	
	California Sagebrush Scrub		Area of Increased 25% Contact Line (3,279sf)	
	Mixed Chaparral	Construction Impacts		
	Coast Live Oak Woodland		Permanent	
	Disturbed		Temporary	
	Developed			

Existing Vegetation at Sunset Upper Debris Basin Dam

Exhibit 4-1

Sunset Upper Debris Basin Dam Modification Project



Long-term operation of the modified Sunset Upper Debris Basin Dam would lead to potential inundation and/or debris deposition within the expanded 25% and 100% contact lines. Table 4-4 summarizes the vegetation types within the expanded 25% and 100% contact lines. As shown, California sagebrush scrub, coast live oak woodland, mixed chaparral, developed, and disturbed areas occur within the post-Project (i.e., expanded) contact lines. Among these, California sagebrush scrub and coast live oak woodland are considered sensitive natural vegetation communities.

**TABLE 4-4
VEGETATION TYPES WITHIN EXPANDED 25% AND 100% CONTACT LINES**

Vegetation Type	Expanded 25% Contact Line sf (acre)	Expanded 100% Contact Line sf (acre)
California sagebrush scrub	611.4 (0.01)	1,696.6 (0.04)
Coast live oak woodland	1,483.6 (0.03)	5,174.8 (0.12)
Mixed chaparral	298.9 (0.007)	1,041.8 (0.02)
Developed	26.7 (0.0006)	230.0 (0.005)
Disturbed	858.5 (0.02)	858.5 (0.02)
Totals	3,279.1 sf (0.08)	9,001.7 sf (0.21)
sf: square feet. Note: Totals may not add due to rounding.		
Source: BonTerra Consulting 2013a (Appendix B).		

As shown in Table 4-4, the change in elevation of the 100% contact line will result in an inundation area increase of approximately 9,002 sf (0.21 acre) between the existing and post-Project contact lines. The additional area includes California sagebrush scrub, coast live oak woodland, and mixed chaparral, as well as developed and disturbed areas. During a storm event that produces storm water and/or debris flows that are greater than the existing debris basin capacity of 20,000 cy, some or all of the additional area of 9,002 sf would be subject to potential inundation.

It should be noted that, while heightening the dam will increase the debris basin capacity by 8,000 cy allowing for the detainment of flows of larger storm events without overtopping, the change in dam height would not be expected to change the inundation frequency, inundation duration, or the flow regime upstream or downstream of the dam. The debris basin typically fills to an average of approximately 18 percent capacity (i.e., 18% of the existing 100% capacity contact line) each season; during larger storm events, the post-project basin may fill to a greater capacity than currently. However, this occurrence is expected to be extremely infrequent. Regardless, the Section 1605 Long-Term Streambed Alteration Agreement for the Debris Basin Maintenance Program (No. 1600-2008-0290-R5)(Section 1605 Agreement) with the CDFG that was signed on August 15, 2011 and other permits related to long-term maintenance activities, would require amendments subsequent to proposed Project implementation to reflect the expanded 25% and 100% contour lines. This requirement has been included as part of MM 4.4-2, which addresses impact to jurisdictional resources (see Response 4.4[c] below). Because the flood regime would remain the same as the existing conditions and with implementation of MM 4.4-2, impacts to vegetation within the post-Project 100% contour line, including the minimal amount of 0.16 acre of sensitive vegetation types (i.e., 0.04 acre California sagebrush scrub and 0.12 acre coast live oak woodland), is considered a less than significant impact of the proposed Project and no additional mitigation is required.

As shown in Table 4-4, the inundation area of the 25% contact line would be increased by approximately 3,279 sf (0.08 acre) between the existing and post-Project contact lines. The expanded 25% contact line would encompass areas of California sagebrush scrub, coast live

oak woodland, and mixed chaparral, as well as developed and disturbed areas. The change in the debris basin's post-Project 25% contact line has an associated capacity increase of 2,000 cy (for a proposed total capacity of 7,000 cy), and the additional 3,279 sf of area would be subject to potential inundation. The post-project 25% contact line inundation area would contain 0.04 acre of sensitive vegetation types (i.e., 0.01 acre of California sagebrush scrub and 0.03 acre of coast live oak woodland). Because of the minimal amount of sensitive vegetation within the post-Project inundation area of the 25% contact line (0.04 acre), the potential inundation of this vegetation would be considered a less than significant impact. Regardless, as discussed above, the Section 1605 Agreement and other permits related to long-term maintenance activities would require amendments subsequent to proposed Project implementation to reflect the expansion of the inundation area of the 25% contact line subsequent to proposed Project implementation, which has been included as part of MM 4.4-2.

Special Status Plant Species

The biological study area was surveyed for special status plant species in spring/summer 2008 (BonTerra Consulting 2008a, 2008b). Plummer's mariposa lily (*Calochortus plummerae*) (which has a California Rare Plant Rank [CRPR] of 1B.2) was observed on the ridge above the debris basin in the area where of Project activities would occur. This ridge area is not within the Project construction footprint and therefore would not be impacted by the Project. Southern California black walnut trees (*Juglans californica*) (which has a CRPR of 4.2) were observed scattered within the coast live oak woodland, and ocellated lily (*Lilium humboldtii* ssp. *ocellatum*) (which has a CRPR of 4.2) was observed in the understory of oak woodland.

No walnut trees would be removed as part of the proposed Project during construction; therefore, the walnut trees would not be impacted by the proposed Project. As discussed above, approximately 0.12 acre of coast live oak woodland within the 100% contact line and approximately 0.03 acre of oak woodland would be potentially impacted by inundation subsequent to construction of the dam modifications. The total of 0.15 acre of oak woodland is a minimal amount of this vegetation type within which scattered ocellated lilies were observed in the larger study area. Therefore, while some ocellated lilies may be impacted by inundation where present within the small area of oak woodland within the expanded contact lines, the majority of lilies would be avoided as only a minimal portion of the oak woodland in the survey area is within the expanded contact lines. Seeds of the lily species may wash down into the debris basin or channel from upstream locations, and a few individuals may occur in the impact area during construction. Impacts on species with a CRPR of 4.2 are typically considered less than significant since this species is not considered to meet the criteria of Section 15380 of the CEQA Guidelines.⁷ Therefore, less than significant impacts would occur to special status plant species, and no mitigation would be required.

Special Status Wildlife Species

Focused surveys in the biological study area following the U.S. Fish and Wildlife Service (USFWS) protocol for the federally Threatened coastal California gnatcatcher (*Polioptila californica californica*) were conducted in spring/summer 2008, and no coastal California gnatcatchers were observed (BonTerra Consulting 2008c). Therefore, the coastal California gnatcatcher is presumed to be absent from the biological study area. Several years have elapsed since the survey has been conducted and gnatcatchers could have moved into the biological study area since the protocol survey was conducted. Although coastal sage scrub habitat is located adjacent to Project site, raising the dam would not directly impact coastal sage

⁷ Section 15380 of the CEQA Guidelines states that, if a species can be shown to meet the definition of Rare, Threatened, or Endangered, it can be treated as such even if it is not formally listed by the resource agencies.

scrub, which serves as habitat for the coastal California gnatcatcher. If the coastal California gnatcatcher were to occur at the Project site in the future, increased noise (during sediment removal and other maintenance activities involving heavy equipment) and human activity could indirectly impact coastal California gnatcatchers (if present). Pre-construction surveys and informal consultation with the USFWS, as required by MM 4.4-1, would reduce this potential adverse impact to a less than significant level.

Other Species of Special Concern have potential to occur, including western spadefoot (*Spea hammondi*), coast (San Diego) horned lizard (*Phrynosoma coronatum* [blainvillii population]), silvery legless lizard (*Anniella pulchra pulchra*), loggerhead shrike (*Lanius ludovicianus*), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), and yellow warber (*Dedroica petechia*); however, Project impacts are limited to developed and disturbed areas at the Sunset Upper Debris Basin Dam, as discussed above, and would have a limited impact on these Species of Special Concern. Therefore, impacts would be less than significant and no mitigation is required.

Prior to any maintenance activities within the expanded maintenance areas during the breeding season, the LACFCD will follow the pre-construction coastal California gnatcatcher survey procedures (as described in MM 4.4-1). This approach is consistent with LACFCD's existing debris basin maintenance permits.

c) Less than Significant with Mitigation

During a survey conducted in 2008, it was determined that drainages within Sunset Canyon are under the jurisdiction of the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW; formerly California Department of Fish and Game) (BonTerra Consulting 2008d). An updated reconnaissance survey was performed in June 2011 to determine whether existing conditions at the Sunset Upper Debris Basin Dam are similar to the conditions previously observed during the 2008 surveys. As summarized in Table 4-5, construction of the proposed dam modifications and access road improvements would impact an estimated 0.233 acre of "waters of the U.S.", including 0.009 acre of wetlands under the jurisdiction of the USACE, and 0.258 acre of resources under the jurisdiction of CDFW, when considering both temporary and permanent impact areas as shown on Exhibit 4-1.

**TABLE 4-5
SUMMARY OF JURISDICTIONAL RESOURCE IMPACTS FROM PROJECT
CONSTRUCTION**

	Permanent Impacts (acres)			Temporary Impacts (acres)			Total Impacts (acres)
	Within 25% Contact Line	Outside 25% Contact Line	Total	Within 25% Contact Line	Outside 25% Contact Line	Total	
USACE (Total)	0.000	0.001	0.001	0.205	0.027	0.232	0.233
Non-wetland "Waters of the U.S."	0.000	0.000	0.000	0.205	0.019	0.224	0.224
Wetlands	0.000	0.001	0.001	0.000	0.008	0.008	0.009
CDFW (Total)	0.000	0.002	0.002	0.201	0.055	0.256	0.258

USACE: U.S. Army Corps of Engineers; CDFW: California Department of Fish and Wildlife.
Source: BonTerra Consulting. 2013a (January). *Biological Resources Report for the Sunset Upper Debris Basin Dam Modification Project, City of Burbank, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting (Appendix B).

As discussed in Section 3.0, Project Description, the LACFCD currently holds USACE, CDFG, and Regional Water Quality Control Board (RWQCB) permits/agreements authorizing maintenance activities at the dam structure and associated debris basin, including disturbance of areas within the existing 25% contact line. Under these permits/agreements, areas within the 25% contact line of the Sunset Upper Debris Basin can be repeatedly impacted by maintenance activities (USACE Regional General Permit File No. SPL-2003-00411-KW; CDFG Streambed Alteration Agreement No. 1600-2008-0290-R5; RWQCB File No. 02-144-2008 Renewal).

**TABLE 4-6
SUMMARY OF JURISDICTIONAL RESOURCES WITHIN THE EXPANDED
100% AND 25% CONTACT LINES**

	Within Expanded 100% Contact Line (acres)	Within Expanded 25% Contact Line (acres)
<i>USACE (Total)</i>	0.019	0.002 ^a
Non-wetland "Waters of the U.S."	0.019	0.002
Wetlands	0.000	0.001
<i>CDFW (Total)</i>	0.120	0.037
^a Total USACE acres do not add due to rounding USACE: U.S. Army Corps of Engineers; CDFW: California Department of Fish and Wildlife. Source: BonTerra Consulting. 2013a (January). <i>Biological Resources Report for the Sunset Upper Debris Basin Dam Modification Project, City of Burbank, Los Angeles County, California</i> . Pasadena, CA: BonTerra Consulting (Appendix B).		

Regarding the expanded debris basin contact lines that would result from long-term operation of the proposed dam modifications, Table 4-6 summarizes the jurisdictional resources present within the expanded 100% and 25% contact lines. The 9,002-sf expansion of the 100% contact line contains 0.019 acre of "Waters of the U.S." and 0.120 acre of resources under the jurisdiction of CDFW. The existing maintenance permits already authorize an entrainment channel and exotic species eradication/control within this area because these activities are permitted to the limits of the County-owned property. Therefore, the only additional impact associated with the proposed Project is highly infrequent removal of debris as the result of large storm events. With implementation of permit conditions associated with the existing maintenance permits for the current 100% contact line, impacts to vegetation due to highly infrequent inundation and associated debris removal would be considered less than significant and would not require additional mitigation.

The 3,279-sf expansion of the 25% contact line contains 0.002 acre of "Waters of the U.S." and 0.037 acre of resources under the jurisdiction of CDFW. As noted above, the existing maintenance permits already authorize an entrainment channel and exotic species eradication/control within this area. However, periodic debris removal would occur within the expanded 25% contact line area. MM 4.4-2 calls for the reduction of the impacts to jurisdictional resources in the expanded 25% contact line above those already authorized by the existing maintenance permits by preservation or restoration of riparian habitat at a ratio that shall be specified in the amended USACE/CDFW/RWQCB permits/agreements in support of long-term debris basin maintenance for the Project. The LACFCD must obtain the necessary permits and approvals for potential additional impacts to riparian resources in the Project area and must implement all required permit conditions. Therefore, implementation of MM 4.4-2 would reduce Project impacts to less than significant levels.

d) **Less than Significant with Mitigation**

Wildlife Movement

Wildlife is expected to move along both the ridgelines and drainages in and around the Project area, Sunset Canyon, and the Verdugo Mountains. The proposed Project would modify an existing dam structure and access road, but would not create a new structure or modify the contact lines of the debris basin in a way that would constitute a barrier to wildlife movement. Therefore, the proposed Project would not be expected to disrupt or discourage long-term wildlife movement and migration.

Non-avian wildlife in the Project area may avoid the immediate area during the days when construction/maintenance is occurring, but would still be expected to use these areas at nights. The temporary impacts on non-avian wildlife movement and migration would be considered short-term in nature, and would therefore be considered less than significant. No mitigation is required.

Nesting Raptors

The red-tailed hawk (*Buteo jamaicensis*) is suspected to be breeding in the oak trees adjacent to the debris basin based on behavior observed during the June 2011 survey. Additionally, several other hawk and owl species have potential to nest in the woodlands adjacent to the Project site. The *California Fish and Game Code* prohibits activities that have the potential to disturb active raptor nests. This protection generally ceases once nesting activity is complete. Construction is tentatively scheduled from April to September, which includes the raptor nesting season from between February 1 and July 30. If a raptor is nesting in the woodlands adjacent to the Project site during construction activities (including geotechnical testing) or occasional debris removal, the increased noise and human activity could disturb the raptor and may impact its behavior and ultimately the success of its nest. Implementation of MM 4.4-3 would ensure that indirect noise and human activity impacts on nesting raptors are avoided or minimized. If a raptor nest is observed during the survey, it would have to be protected by a CDFW-approved buffer where no construction activity would be allowed until the nest had failed or the nestlings have fledged.

Nesting Birds

The federal Migratory Bird Treaty Act (MBTA) protects the nests of all native bird species, including common species, such as the mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), and house finch (*Carpodacus mexicanus*). In addition to protecting nests located in native trees and shrubs, the MBTA also protects nests located on bare ground and on structures. Construction is tentatively scheduled from April to September, which includes the bird nesting season (i.e., between March 15 and September 15). Any nests located on the existing dam structure (e.g., cliff swallow [*Petrochelidon pyrrhonota*], house finch, black phoebe [*Sayornis nigricans*]) or on the bare ground within the Project site (e.g., killdeer [*Charadrius vociferus*]) could be directly impacted if construction harms their nests. If birds are nesting in the California sagebrush scrub, mixed chaparral, or coast live oak woodlands adjacent to the Sunset Upper Debris Basin Dam modification area, the increased noise and human activity could also disturb the birds and may impact their behavior and ultimately the success of their nests. Implementation of MM 4.4-4 would be required to ensure that direct and indirect noise and human activity impacts on nesting birds are avoided or minimized. Each nest observed during the survey would have to be protected by a buffer (size varies by species) where no construction/maintenance activity would be allowed until the nest has failed or until the nestlings have fledged.

e) Less than Significant Impact

Significant Ecological Area

The Project is located within an area designated by the County of Los Angeles as the SEA, established in 1976. However, the SEA is entirely within the cities of Glendale, Burbank, and Los Angeles. Therefore, the County's SEA program, and associated SEATAC review process, is not applicable to the Verdugo Hills SEA. There would be no impact related to conflict with the County's SEA program and no mitigation is required.

Trees

No trees would be removed or require trimming during project construction; therefore, there would be no impact on coast live oak or Southern California black walnut trees and no permits would be needed. Therefore, there would be no impacts related to conflict with any tree protection ordinance and no mitigation is required.

f) No Impact

No Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) have been adopted for the Project area. Thus, no impact related to an HCP or NCCP would occur.

4.4.3 MITIGATION PROGRAM

Regulatory Requirements

While several regulations protect sensitive biological resources in the region, the measures that the LACFCD would need to implement to comply with these regulations are outlined as specific mitigation measures below.

Mitigation Measures

MM 4.4-1 Prior to construction of the dam modifications, the County of Los Angeles Flood Control District (LACFCD) or their consultant shall contact the USFWS to determine the appropriate pre-construction survey methodology (e.g., full protocol survey or a reduced-visit modified survey protocol) for the coastal California gnatcatcher and discuss and obtain approval on: pre-nesting season exclusionary measures; and avoidance and minimization measures if a nesting coastal California gnatcatcher is observed during the pre-construction survey. The LACFCD will implement the approved exclusionary measures prior to the coastal California gnatcatcher's breeding season. Prior to construction a permitted gnatcatcher Biologist (i.e., one holding a 10[a][1][A]) permit to conduct surveys for the coastal California gnatcatcher) shall conduct a pre-construction survey for coastal California gnatcatcher following the methodology approved by the USFWS to determine the presence or absence of this species in the coastal sage scrub in and adjacent to the Project site. If no coastal California gnatcatchers are observed, no further avoidance or mitigation would be required. If the coastal California gnatcatcher is observed during the pre-construction survey, the LACFCD (and/or their consultant) shall contact the USFWS to discuss and obtain approval on avoidance and minimization measures recommended by the qualified gnatcatcher Biologist. These may include, but would not be limited to, biological monitoring by a permitted gnatcatcher Biologist

during construction or maintenance activities; construction or maintenance activities restricted to occur outside the breeding season (February 14 to August 15); or noise restrictions near the occupied area.

Prior to any maintenance activities within the expanded maintenance areas during the breeding season, the LACFCD will follow the same pre-construction coastal California gnatcatcher survey as described above. This approach is consistent with the LACFCD's existing debris basin maintenance permits.

MM 4.4-2

Prior to construction, the LACFCD will obtain permits/agreements from the U.S. Army Corps of Engineers (USACE), the California Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW) to authorize impacts to "Waters of the United States", including wetlands, and resources under the jurisdiction of the CDFW that are outside the impacts already authorized under the LACFCD's existing permits/agreement for maintenance of the debris basin. (These maintenance authorizations are comprised of: USACE Regional Permit File No. SPL-2003-00411-KW; RWQCB File No. 02-144-2008 Renewal; and CDFW Streambed Alteration Agreement No. 1600-2008-0290-R5.) No Project-related discharge or fill material will be allowed to impact any drainages in the Project impact area until the new permits/agreement are obtained. Compliance with the conditions of the new permits/agreement and applicable conditions of the existing maintenance permits/agreement will be made part of the Project construction. Based on LACFCD's experience, these conditions may include biological monitoring during the initiation of construction; use of Best Management Practices (BMPs) to protect water quality; flagging of the boundaries of the construction site; measures to protect trees; other measures to protect sensitive species; mitigation for construction impacts outside those already authorized in the existing maintenance permits/agreement; and mitigation for ongoing impacts within the expanded maintenance area. Such mitigation may include onsite or off-site preservation or restoration of impacted habitat.

It is anticipated that the permits/agreement for the construction of the Project will also cover the first several years of maintenance within the expanded maintenance areas, until the LACFCD and the permitting agencies can coordinate to amend the existing maintenance permits/agreement to incorporate the additional maintenance footprint.

MM 4.4-3

The LACFCD will work with the CDFW during the preparation of the Project's Streambed Alteration Agreement to incorporate into the Agreement CDFW-approved temporary exclusionary measures to prevent raptor nesting within the established buffer distance from the Project construction areas. The LACFCD will employ approved exclusionary measures prior to February 1 (start of raptor breeding season) and remove them upon completion of construction activities. Prior to construction of the proposed Project, a pre-construction survey for active raptor nests shall be conducted by a qualified Biologist prior to the commencement of any construction activities as directed in the CDFW Streambed Alteration Agreement. If an active nest is observed, it shall be mapped and a buffer zone designated per CDFW's direction to protect the nest. Construction activities will be excluded from this buffer zone until the nest is no longer active.

Prior to any maintenance activities within the expanded maintenance areas during the breeding season (February 1 to July 30), the LACFCD will follow the same pre-construction raptor nesting survey procedure and restrictions as described above. This approach is consistent with the LACFCD's existing debris basin maintenance permits.

MM 4.4-4

The LACFCD will work with the CDFW during the preparation of the Project's Streambed Alteration Agreement to incorporate into the Agreement CDFW-approved temporary exclusionary measures to prevent migratory bird nesting within the established buffer distance from the Project construction areas. The LACFCD will employ approved exclusionary measures prior to March 1 (start of nesting season) and remove them upon completion of construction activities. Prior to commencement of construction activities of the proposed Project, a pre-construction survey for active bird nests shall be conducted by a qualified Biologist (or as otherwise directed in the CDFW Streambed Alteration Agreement). The survey shall include all potential nesting areas, including dam structures and bare ground. If an active nest is observed, it shall be mapped and a buffer zone designated per CDFW's direction to protect the nest; the size of the buffer will be determined by the Biologist based on the sensitivity of the species and CDFW requirements. Construction activities will be excluded from this buffer zone until the nest is no longer active.

Prior to any maintenance activities within the expanded maintenance areas during the nesting season (March 1 to August 31), the LACFCD will follow the same pre-construction nesting bird survey procedure and restrictions as described above. This approach is consistent with LACFCD's existing debris basin maintenance permits.

4.5	<u>CULTURAL RESOURCES</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:					
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.5.1 ENVIRONMENTAL SETTING

Archaeological and Historic Inventory

BonTerra Consulting Archaeologist Patrick Maxon, a Registered Professional Archaeologist (RPA), conducted an archaeological/historical resources records search and literature review for the Project at the South Central Coastal Information Center (SCCIC)⁸ at the California State University, Fullerton, on June 6, 2011. In addition to the archaeological inventory records, reports and historic maps, an examination was made of the Historic Property Data File (HPDF) maintained by the Office of Historic Preservation. The HPDF is a listing of buildings and structures within a specified city that have been evaluated for listing on the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). Each property is assigned a status code after a determination has been made.

The records review at the SCCIC indicates that no cultural resources sites have been previously recorded and/or evaluated on the Project site, and no cultural resources studies have been previously completed on the Project site. One site, the Starlight Theater (19-186991), is located within 1 mile of the Project site; two sites are located 1.2 miles southwest of the Project site: (1) City of Burbank City Hall (19-180746) and (2) the U.S. Post Office – Burbank Downtown Station (19-180751). These latter two sites are listed in the NRHP. The Glendale (1928; reprinted 1948) and La Crescenta (1939) historic U.S. Geological Survey (USGS) quadrangles show numerous structures along Sunset Canyon Road within the Sunset Lower Watershed. Many of these same structures are still depicted on the current quadrangle.

Native American consultation was initiated with the Native American Heritage Commission (NAHC) through a request for a Sacred Lands File Search and contact list. A response was received from the NAHC on June 21, 2011, and informational letters were mailed to tribes and individuals on the NAHC list soon after. The results of the California Historical Resources Information System records search and Native American consultation are provided in Appendix C.

⁸ The SCCIC houses records for archaeological and historical resources in Orange, Los Angeles, and Ventura Counties.

Native American Scoping

The Sacred Lands File Search that was required of the Native American Heritage Commission (NAHC) did not identify the presence of Native American cultural resources within the Project area. The NAHC suggested early consultation with local Native American tribes, providing a list of Native American individuals/organizations that may have knowledge of cultural resources in the Project area. The list included the following individuals:

- Charlie Cook – Chumash, Fernandeno, Tataviam, and Kitanemuk Tirbe;
- Ron Andrade – Director, Native American Indian Commission;
- John Tommy Rosas – Tribal Administrator Gabrielino Tongva Territorial Tribal Nation;
- John Valenzuela – Chairperson, San Fernando Band of Mission Indians;
- Anthony Morales – Chairperson, Gabrielino/Tongva San Gabriel Band of Mission Indians;
- Sam Dunlap – Tribal Secretary, Gabrielino Tongva Nation;
- Robert Dorame – Tribal Chair/Cultural Resources Gabrielino Tongva Indians of California Tribal Council;
- Bernie Acuña – Gabrielino-Tongva Tribe;
- Andy Salas – Chairperson, Shoshoneon Gabrieleno Band of Mission Indians; and
- Linda Candelaria – Chairwoman, Gabrielino-Tongva Tribe.

A letter was mailed on June 28, 2011, to these individuals to inform them about the Project and allow them to share any knowledge they have of cultural resources in the Project vicinity. However, no responses to the inquiry letters have been received to date.

Cultural Resources Field Survey

BonTerra Consulting conducted a field visit to the Project site to examine the area for the presence of cultural resources. On October 27, 2011, BonTerra Consulting archaeologist Brady Long completed a survey of the debris basin area. Mr. Long examined all accessible areas around the dam itself and viewed the expanded contact line areas where possible. No cultural resources were discovered and, because of the steep terrain at the margins of the dam, no resources are expected in those areas. No archaeological materials or possible archaeological materials, either prehistoric or historic, were observed.

4.5.2 IMPACT ANALYSIS

a) No Impact

Since the Sunset Upper Debris Basin Dam exceeds 50 years of age and would be modified as part of the proposed Project, Ms. Pam Daly of Daly and Associates conducted a Historic Resources Assessment Report of the dam and its associated structures. The Historic Resources Assessment Report for the Project is provided in Attachment A of the Cultural Resources Memorandum provided in Appendix C of this Initial Study. The Sunset Upper Debris Basin Dam and associated structures were evaluated for eligibility for listing in the NRHP, CRHR, or as a Designated Historic Resource (DHR) in the City of Burbank. Ms. Daly conducted records research, completed a field survey, and produced a Department of Parks and Recreation (DPR) 523 Series Site Record and evaluation report for the dam. In summary, the

dam and associated features were found ineligible for listing in the NAHC, CRHR, or as a DHR. It does not meet any of the significance criteria (A/1/A, B/2/B, C/3/C, or D/4/D) described in the NRHP (A, B, C, or D), CRHR (1, 2, 3, or 4), or DHR (A, B, C, or D). Therefore, no further consideration need be given to the Sunset Upper Debris Basin and associated structures as a cultural resource; there would be no impact to historic resources with implementation of the proposed Project.

b) Less than Significant Impact

As discussed above, there are no known archaeological resources at the Sunset Upper Debris Basin Dam, and the cultural resources investigation concludes that archaeological resources are not expected to be encountered. The proposed dam modifications, including raising the access road, would occur within already disturbed areas. Inundation of the expanded 100% contact line during or after a highly infrequent major storm or periodic removal of sediment within the expanded 25% contact line are not expected to uncover or impact unknown archaeological resources, as sediment removal involves only disturbance of the accumulated sediment and not native soils. Therefore, construction of the proposed Project would involve no, to limited, disturbance of native soils. The proposed Project would have a less than significant impact to archaeological resources.

c) Less than Significant Impact

As discussed under Response 4.5(b) above, implementation of the proposed Project would involve no, to limited, disturbance of native soils that have the potential to contain unknown paleontological resources. Also, the Project site does not include any unique geologic features. Therefore, impacts to paleontological resources would be less than significant.

d) Less than Significant Impact

Previous construction activities for the Sunset Upper Debris Basin Dam and access road have disturbed the natural ground (i.e., native soils) and there is no indication that human remains are present on or near the Sunset Upper Debris Basin Dam. These previously disturbed areas are not expected to uncover human remains. Also, inundation of the expanded 100% contact line during or after a major storm or periodic removal of sediment within the expanded 25% contact line are not expected to uncover or impact human remains or burials, as sediment removal involves only disturbance of the accumulated sediment and not native soils. No impact on any known human remains would occur. However, should grading and excavation for construction of the proposed Project unearth human remains or unknown burials, compliance with existing regulatory requirements under the *California Health and Safety Code* and the *California Public Resources Code*, as discussed under RR 4.5-1 below, would ensure that potential impacts to human remains would be less than significant.

4.5.3 MITIGATION PROGRAM

Regulatory Requirements

RR 4.5-1 In the event of the discovery of human remains, compliance with Section 7050.5 of the *California Health and Safety Code* is required. This regulation states that if human remains are found during ground-disturbing activities, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment

and disposition of the human remains. The County Coroner shall be notified within 24 hours of the discovery.

If the County Coroner determines that the remains are or are believed to be Native American, s/he shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours of the discovery. In addition, Section 5097.98 of the *California Public Resources Code* states that the NAHC must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete their inspection within 48 hours of being granted access to the site by the property owner. The property owner would then determine, in consultation with a designated Native American representative, the final disposition of the human remains (14 *California Code of Regulations* §15064.5[e]).

The contractor would need to comply with these regulations upon the discovery of human remains during ground-disturbance activities. This RR shall be included by the County as notes in the Contractor Specifications.

Mitigation Measures

Project implementation would result in less than significant impacts; therefore, no mitigation is required.

4.6 <u>GEOLOGY AND SOILS</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.6.1 ENVIRONMENTAL SETTING

Sunset Canyon features the steep slopes of the Verdugo Mountains, which are underlain by crystalline or metamorphic bedrock. Elevations at the Sunset Canyon watershed range from 3,080 feet above msl in the northeastern portion of the watershed to 1,080 feet above msl at the southwestern end. There are no potentially active or active faults traversing the Project site. The nearest known active fault is the Verdugo Fault, located at the southern base of the Verdugo Mountains and approximately 1 mile south of the dam (LACDRP 1990). The California Division of Mines and Geology has not designated an Alquist-Priolo Earthquake Fault Zone (Alquist-Priolo Zone) on the Verdugo Fault or any area within the Verdugo Mountains. The nearest Alquist-Priolo Zone is along the Mount Lukens Fault, located approximately 4.5 miles northeast of the dam (CDMG 1979).

4.6.2 IMPACT ANALYSIS

a) i. and iii. No Impact

There are no known faults traversing the Sunset Upper Debris Basin Dam project site. The California Geological Survey Hazards Mapping Program does not identify liquefaction hazards within the Verdugo Mountains, including Sunset Canyon (CDMG 1999). Therefore, the proposed Project would not be exposed to surface rupture or liquefaction hazards, and there would be no impact.

a) ii. and iv. Less Than Significant Impact

As with all of Southern California, the Project area is within a seismically active region. Also, according to the California Geological Survey Hazards Mapping Program, the Verdugo Mountains, including Sunset Canyon, are susceptible to earthquake-induced landslides (CDMG 1999). The proposed Project does not involve the construction or occupancy of habitable structures that could expose people to seismic ground shaking. However, the Sunset Upper Debris Basin Dam would likely be subject to strong seismic ground shaking within the life of the Project, and the canyon slopes have the potential for seismically induced landslides. Ground disturbance associated with construction of the proposed Project could also affect the stability of the canyon's side slopes and its potential for landslides.

Prior to Project implementation, the LACDPW's Geotechnical and Materials Engineering Division (GMED), on behalf of the LACFCD, would investigate the Project site and conduct a visual observation of existing conditions. The GMED may also evaluate the potential geotechnical constraints related to construction and operation of the proposed Project and determine any specific engineering measures to be implemented. Also, the expanded 25% and 100% contact lines would not exacerbate ground shaking or landslide hazards. Rather, implementation of the proposed Project would reduce the potential for downstream erosion and landslides and consequently reduce associated threats to people and structures. Because the proposed Project would reduce the potential for landslides to adversely affect downstream populations and because the Project would not construct habitable structures that could expose people to risks from landslides or seismic events, impacts would be less than significant.

b) Less Than Significant Impact

The proposed Project involves raising the spillway height and parapet walls of an existing dam and raising the elevation of an existing access road. As stated earlier, the Project would increase the storage capacity of the debris basin and provide additional debris storage upstream of the dam, reducing the velocity and the debris content of the flood waters that could cause downstream erosion. Therefore, the proposed Project would reduce downstream erosion potential and loss of topsoil within the canyon during storm events. In the short term, ground disturbance associated with constructing the Project may lead to the erosion of disturbed slopes. However, the proposed Project would be constructed outside the rainy season and excavated areas would be backfilled with concrete backfill as soon as feasible to prevent erosion or loss of topsoil. Removal of sediment within the expanded 25% and 100% contact lines, when necessary, involves only disturbance of the collected sediment and not native soils. Impacts would be less than significant.

c, d) Less Than Significant Impact

As discussed above, Sunset Canyon is not located in an area with liquefaction hazards. The potential for landslides and other geologic hazards and expansive soils in the areas that would be disturbed as part of the proposed Project would be evaluated by the LACDPW (GMED), on behalf of the LACFCD, prior to Project implementation. Implementation of the engineering measures specified for the proposed Project by the GMED would ensure the structural stability of the proposed improvements and it would prevent the creation or exacerbation of geologic hazards (such as landslides, lateral spreading, subsidence, liquefaction, or collapse) in Sunset Canyon. The expanded 25% and 100% contact lines would not create or exacerbate geologic hazards or be affected by local geologic conditions. Impacts would be less than significant.

e) No Impact

The proposed Project would not generate any wastewater or require septic tanks or alternative wastewater disposal systems. Thus, no impacts associated with soils that are incapable of supporting septic tanks or alternative wastewater disposal systems would occur.

4.6.3 MITIGATION PROGRAM

Regulatory Requirements

None.

Mitigation Measures

Project implementation would result in less than significant impacts; therefore, no mitigation is required.

4.7 <u>GREENHOUSE GAS EMISSIONS</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.7.1 ENVIRONMENTAL SETTING

Climate change refers to any significant change in climate (e.g., the average temperature, precipitation, or wind patterns) over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have been associated with global warming, which is an average increase in the temperature of the atmosphere near the Earth's surface; this is attributed to an accumulation of greenhouse gas (GHG) emissions in the atmosphere. GHGs trap heat in the atmosphere which, in turn, increases the Earth's surface temperature. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through fossil fuel combustion, in conjunction with other human activities, appears to be closely associated with global warming (OPR 2008). Table 4-7 shows the magnitude of GHG emissions on the global, national, State, and regional scales.⁹

**TABLE 4-7
COMPARISON OF WORLDWIDE GHG EMISSIONS**

Area and Data Year	Annual GHG Emissions (MMTCO ₂ e)
World (2006)	29,000
United States (2008)	6,950
California (2008)	478
Los Angeles County (2008)	93
MMTCO ₂ e: million metric tons of carbon dioxide equivalent; GHG: greenhouse gas(es)	
Source: WRI 2009; USEPA 2010a; CARB 2010; SCAG 2008.	

GHGs, as defined under California's Assembly Bill (AB) 32, include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). General discussions on climate change often include water vapor, ozone, and aerosols in the GHG category. Water vapor and atmospheric ozone are not gases

⁹ GHG emissions are commonly expressed in metric tons of carbon dioxide equivalent (MTCO₂e). Larger quantities of emissions, such as on the State or world scale, are expressed in million metric tons of carbon dioxide equivalent (MMTCO₂e). (Metric tons may also be stated as "tonnes".) The CO₂e for a gas is derived by multiplying the tons of the gas by the associated GWP such that MMTCO₂e = (million metric tons of a GHG) x (GWP of the GHG). For example, the GWP for methane (CH₄) is 21. This means that emissions of 1 million metric tons of CH₄ are equivalent to the emissions of 21 million metric tons of carbon dioxide (CO₂).

that are formed directly in the construction or operation of development projects, nor can they be controlled in these projects. Aerosols are not gases. While these elements have a role in climate change, they are not considered by regulatory bodies, such as CARB, or climate change groups, such as the California Climate Action Registry (CCAR), as gases to be reported or analyzed for control. Therefore, no further discussion of water vapor, ozone, or aerosols is provided.

GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both its potency and lifespan in the atmosphere as compared to CO₂. For example, since CH₄ and N₂O are approximately 21 and 310 times more powerful than CO₂, respectively, in their ability to trap heat in the atmosphere, they have GWPs of 21 and 310, respectively (CO₂ has a GWP of 1). Carbon dioxide equivalent (CO₂e) is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the emission rate of that gas to produce the CO₂e emissions.

AB 32, the California Global Warming Solutions Act of 2006, recognizes that California is the source of substantial amounts of GHG emissions. The statute states that:

Global warming poses a serious threat to the economic well being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

In order to avert these consequences, AB 32 establishes a State goal of reducing GHG emissions to 1990 levels by the year 2020, which is a reduction of approximately 28 percent from forecasted emission levels, with further reductions to follow.

The Sunset Upper Debris Basin Dam generates GHG emissions from vehicles coming to and from the site for maintenance, inspection, and construction activities and occasional sediment removal activities.

4.7.2 IMPACT ANALYSIS

a) Less than Significant Impact

The County has not adopted or established any quantitative significance criteria for GHG emissions. In April 2008, the SCAQMD convened a working group to provide guidance to local lead agencies on determining the significance for GHG emissions in their CEQA documents. The working group adopted a philosophy similar to recommendations made by other agencies in California to identify Significance Screening Levels, or thresholds, for GHG emissions. Projects with GHG emissions less than these levels or thresholds would be determined to have less than significant impacts. Projects with GHG emissions greater than the Significance Screening Level would be required to implement specific performance standards or purchase offsets to reduce their climate change impact to less than significant levels. In December 5, 2008, the SCAQMD Governing Board adopted an interim screening threshold for industrial projects where SCAQMD is the lead agency of 10,000 MTCO₂e/year. In September 2010, the working group proposed to expand this 10,000 MTCO₂e/year threshold to other lead agency industrial projects (SCAQMD 2010). Although the SCAQMD Governing Board has yet to

consider this proposal, the SCAQMD threshold is the most applicable to the Project and is used in the analysis below.

The principal source of GHG emissions during the construction of the proposed Project would be the internal combustion engines of demolition and construction equipment, on-road construction vehicles, and workers' commuting vehicles. Construction emissions of CO₂e were calculated by using CalEEMod Version 2011.1.1 (SCAQMD 2011b), as described in Section 4.3, Air Quality. CalEEMod incorporates local energy emission factors and mitigation measures based on the California Air Pollution Control Officers Association (CAPCOA) publication entitled *Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures* (CAPCOA 2010) and the *California Climate Action Registry General Reporting Protocol* (CCAR 2009). The CalEEMod model computes GHG from construction and operations. Construction assumptions are described in Section 4.3, Air Quality. Construction emissions would be associated with vehicle engine exhaust from construction equipment, vendor trips, and worker commuting trips. For the proposed Project, GHG emissions during construction of the proposed dam modifications are estimated at 152 MTCO₂e (Calculation data are included in Appendix A).

Because construction impacts are relatively short-term (approximately 6 to 7 months), they would contribute a relatively small portion of the overall lifetime Project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. In its *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Thresholds*, the SCAQMD recommends that construction emissions be amortized over a 30-year Project lifetime so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies (SCAQMD 2008).

The increase in GHG emissions for the Project, based on the 30-year amortization of construction emissions, is estimated at 5 MTCO₂e per year, which is substantially less than the 10,000 MTCO₂e per year threshold recommended by SCAQMD. GHG emissions from the Project would not be cumulatively considerable; the Project would not generate GHG emissions that, either directly or indirectly, may have a significant impact on the environment. Impacts from construction GHG emissions would be less than significant and no mitigation is required.

As discussed in Section 4.3, Air Quality, subsequent to infrequent major storms events, sediment removal would occur within the expanded 100% contact line, which would provide a total of 8,000 cy of additional capacity. Sediment removal is typically completed by a backhoe or excavator transferring the sediment into a dump truck, which is used to transport the sediment from the debris basin to a designated SPS. It would be speculative to assume that debris removal from the larger debris cone would result in more or less GHG emissions than removal of the same debris that, without the proposed Project, would otherwise have to be removed from roads and properties that would be inundated from overflow of the existing basin.

Periodic sediment removal would occur within the expanded 25% contact line. As discussed in Section 4.3, Air Quality, the frequency of sediment removal would decrease due to the debris basin's larger capacity, but greater amounts of sediment (up to 2,000 cy more than the existing condition) would be removed each time. Since the cumulative amount of sediment removal would not change and the number of equipment and trucks used daily for sediment removal would not change, there would be no increase or decrease in GHG emissions related to long-term debris basin maintenance. Therefore, the impact to global GHG emissions would be less than significant.

b) No Impact

As discussed above, the principal State plan and policy adopted for the purpose of reducing GHG emissions is AB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020. Statewide plans and regulations, such as GHG emissions standards for vehicles and the Low Carbon Fuel Standard, are being implemented at the statewide level, and compliance at the specific plan or project level is not addressed.

As described in Section 4.17, Utilities and Service Systems, RR 4.17-1 requires at least 50 percent of all construction and demolition (C&D) debris, soil, rock, and gravel removed from a Project site to be recycled or reused, unless a lower percentage is approved by the Director of the LACDPW. By complying with this RR, construction activities associated with Project implementation would be consistent with one of the goals of AB 32, which is to reduce GHG emissions through increased recycling.

As shown in Response 4.7(a) above, the increase in GHG emissions would be limited when compared to SCAQMD's recommended significance threshold. Implementation of the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

4.7.3 MITIGATION PROGRAM

Regulatory Requirements

None

Mitigation Measures

Project implementation would not result in significant impacts related to GHG emissions; therefore, no mitigation is required.

4.8 <u>HAZARDS/HAZARDOUS MATERIALS</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.8.1 ENVIRONMENTAL SETTING

Review of the California Department of Toxic Substances Control's (DTSC) Envirostor database and the USEPA's Envirofacts database show that hazardous material users and hazardous waste generators are generally located in the City of Burbank's commercial and industrial areas, with the nearest hazardous waste generator (Eagle Disposal Systems) located approximately 1.0 mile southwest of the Sunset Upper Debris Basin Dam (DTSC 2007; USEPA 2011).

The nearest airport to the Project site is Bob Hope Airport, located at 2627 Hollywood Way in Burbank, which is located approximately 3.7 miles west of the site. The Airport Influence Area for this airport does not include the Sunset Upper Debris Basin Dam or immediately surrounding areas (ALUC 2004).

There are no hazardous liquid or high-pressure gas transmission lines on or near the Sunset Upper Debris Dam. The nearest hazardous material pipeline is a crude oil pipeline running beneath Sixth Street, approximately 1.7 miles south of the dam (PHMSA 2010). The Project area is designated as a Very High Fire Hazard Severity Zone, as mapped by the California Department of Forestry and Fire Protection (CAL FIRE 2007).

4.8.2 IMPACT ANALYSIS

a, d) No Impact

There is no existing long-term hazardous materials use or storage at the debris basin and dam, and no hazardous materials use or storage would occur with the proposed Project. The Sunset Upper Debris Basin Dam is not listed in government databases as a hazardous materials user or hazardous waste generator. Also, the site is not located near a site listed in government databases as a hazardous materials user or hazardous waste generator (DTSC 2013; USEPA 2013). Therefore, no impact associated with hazardous materials users or hazardous waste generators would occur with the proposed Project.

b) Less Than Significant Impact

During the construction phase of the proposed Project, there is a limited risk of accidental release of hazardous materials such as gasoline, oil, or other fluids in the operation and maintenance of construction equipment. These materials are common to typical construction activities and do not pose a significant risk of upset or hazard to the public or environment. Also, the LACFCD has specified Best Management Practices (BMPs) to be implemented by its contractors and maintenance personnel related to construction and maintenance vehicle cleaning, fueling, and maintenance to minimize risk of spills or other material discharges. There would be a less than significant impact.

c) No Impact

There are no schools located within approximately ¼ mile of the Sunset Upper Debris Basin Dam. The nearest schools are Ralph Emerson Elementary School and John Muir Middle School, both located off North Kenneth Road approximately 1.6 miles to the southwest of the Project site. Because the proposed Project would not involve the routine use of hazardous materials and because construction-period use of common hazardous materials, as discussed above, would be limited to the Project site, there would be no impacts to schools related to potential hazardous materials release.

e, f) No Impact

As discussed above, the nearest airport to the Project site is Bob Hope Airport, which is located approximately 3.7 miles west of the site. The Sunset Upper Debris Basin Dam is not located within the airport influence area of Bob Hope Airport. Therefore, the proposed Project would not adversely affect aircraft or airport operations, and there would be no impact.

g) Less than Significant Impact

The Project site is not located on a public roadway used for emergency response or evacuation. The access road across the dam may serve as an emergency access or evacuation route for LACFCD employees or contractors working at the Project site. During construction activities, this road could be partially blocked by construction equipment but would remain available to serve as an evacuation route for construction personnel. Country Club Drive would be used

to access the Project site during both construction and maintenance activities. This road could be partially blocked by construction and/or maintenance equipment (e.g., pick up trucks and dump trucks) for short periods of time, but would remain available to serve as an evacuation route for workers. The proposed Project would implement RR 4.16-1 from Section 4.16, Traffic and Transportation, which requires traffic-control actions to ensure the safe flow of traffic during construction and sediment-removal activities and is described fully in Section 4.16. The nearest residences are located to the south along Country Club Drive and, as such, the periodic partial blocking of Country Club Drive would not impede their access. Impacts would be less than significant and no mitigation is required.

h) Less than Significant Impact

The Sunset Upper Debris Basin Dam is located in the Mountain Fire Zone, as designated in the Public Safety Element of the *City of Burbank's General Plan* (Burbank 2012). The debris basin is also located within a Very High Fire Hazard Severity Zone, as designated by CAL FIRE. The debris basin site includes undeveloped land where wildfire may potentially occur. However, the Sunset Upper Debris Basin Dam is not manned and employee visits for long-term maintenance would be intermittent at an average of two to three times per year, the same as the existing condition. Therefore, wildfire hazards would be confined to the on-site structures at the dam (i.e., parapet wall, spillway, abutments, retaining wall, fencing, and access road), which are not combustible. Therefore, the proposed Project would not result in a significant risk of loss, injury, or death involving wildland fires and there would be a less than significant impact.

4.8.3 MITIGATION PROGRAM

Regulatory Requirements

None.

Mitigation Measures

The proposed Project would result in less than significant impacts related to hazards and hazardous materials; therefore, no mitigation is required.

4.9 <u>HYDROLOGY AND WATER QUALITY</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of pollutant runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.9.1 ENVIRONMENTAL SETTING

The Sunset Upper Debris Basin Dam is located in the upper section of Sunset Canyon in the Verdugo Mountains, where steep canyon walls and channel slopes rapidly concentrate storm water runoff. The Sunset Upper Debris Basin Dam helps to slow the velocity of runoff and collects and traps sediment-laden storm water that could lead to erosion of the canyon slopes and end up damaging downstream properties. Storm water runoff in the Sunset Upper Debris Basin typically percolates into the soils behind the dam, with low flows passing through an inlet pipe that releases water into a trapezoidal channel downstream of the dam. High flows in the debris basin go over the dam's spillway and continue downstream as sheet flow via Country Club Drive and eventually flow to the Sunset Lower Debris Basin. Country Club Drive serves as the drainage channel for the lower segment of the canyon. In addition, 2 water tanks, owned by Burbank Water and Power, are located approximately 200 feet east of the terminus of Country Club Drive.

The Federal Emergency Management Agency (FEMA) has identified flood hazards in the City of Burbank, which includes a segment of Country Club Drive downstream of the Sunset Upper Debris Basin Dam. This area is designated as Zone AO – areas within the 100-year floodplain with flood depths of 3 feet (FEMA 2008) and is shown in Exhibit 4-3, Flood Zones.

4.9.2 IMPACT ANALYSIS

a, f) Less Than Significant Impact

No change in storm frequency or intensity would occur with the proposed Project. The proposed dam modifications and the resulting expanded debris basin contact lines would not generate discharges that would affect water quality.

The proposed Project's construction and debris basin maintenance activities would have the potential to contribute additional sediment into existing flows in the canyon. Construction of the proposed Project and debris basin maintenance activities in the expanded 25% and 100% contact lines would disturb less than one acre and would not be subject to the Statewide Construction General Permit Order 2009-0009-DWQ. However, the Project would need to comply with the City of Burbank's regulations for storm water discharges (as contained in Title 8, Chapter 2, Article 10 of the City's Municipal Code) and for refuse or contaminating substances in channels (as contained in Chapter 20.94 of the Los Angeles County Code; see RRs 4.9-1 and 4.9-2). Therefore, any C&D debris and other construction-related substances would not be released into Sunset Canyon. Compliance with these regulations may require that construction areas be surrounded by sand bags and/or silt fences; construction activities be scheduled outside the rainy season (as proposed); vehicle washing and equipment repair be conducted off site; and/or off-site disposal of all demolition and construction wastes. Compliance with these regulations would reduce potential water quality impacts during construction and debris basin maintenance to a less than significant level.

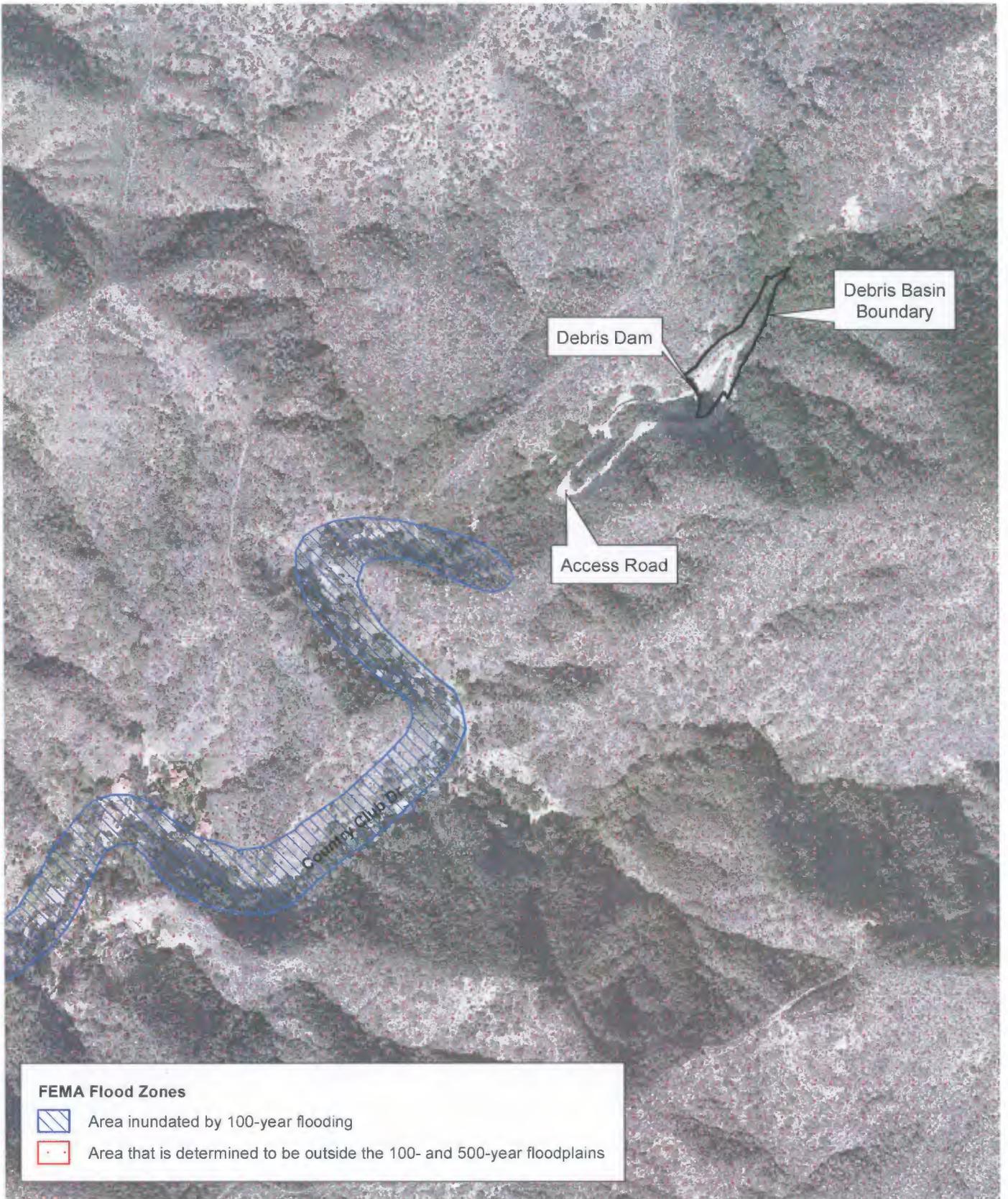
b) No Impact

The Verdugo Mountains, including Sunset Canyon, do not overlie a groundwater basin. The proposed Project would not impact groundwater supplies or interfere with groundwater recharge. The Project would not generate a long-term demand for potable water or groundwater supplies. Water for construction activities would be brought to the site by a water truck, as needed. The minor increase in impervious surfaces from the dam abutments and retaining wall would not affect groundwater recharge since these improvements are located on the side slopes and ground percolation at the canyon bottom would remain the same. There would be no impact.

c, d, e) No Impact

The proposed Project would not change the course of water flows through Sunset Canyon. Instead, the proposed Project would increase the capture of floodwaters, sediment, floating debris, boulders, and mudflow during major storms. Implementation of the proposed Project would reduce the potential for flooding, erosion, and landslides during major storms. The Project would not provide additional sources of pollutant runoff, but would decrease sediment and debris in floodwaters that flow downstream of the dam. The proposed Project would have a beneficial impact on downstream erosion and water quality. There would be no impact.

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FEMA Flood Zones

-  Area inundated by 100-year flooding
-  Area that is determined to be outside the 100- and 500-year floodplains

Flood Zones

Exhibit 4-2

Sunset Upper Debris Basin Dam Modification Project



g, h, i) No Impact

The proposed dam modifications would not place structures or housing within a 100-year flood hazard area, as mapped on FEMA's Flood Insurance Rate Maps (FEMA 2008). As discussed above, the proposed Project would increase the capacity of the Sunset Upper Debris Basin, thereby further reducing the potential to expose downstream populations to risks from flooding. The proposed Project would have a beneficial impact in terms of flood protection. There would be no impact.

j) No Impact

There are no open bodies of water upstream of the Sunset Upper Debris Basin Dam, and Sunset Canyon is not located within the inundation areas of upstream dams and reservoirs (LACDRP 1990). Failure of the water tanks on Country Club Drive would flow south into lower areas and would not affect the dam, which is at a higher elevation. The dam is more than 18 miles from the ocean, and is outside the tsunami inundation areas along the coast (DOC 2013). The larger inundation area in the debris basin that would be created by the proposed Project would not create inundation hazards or potentially lead to personal injury or property damage since the existing and future debris cone limit consists of undeveloped open space and since, as discussed above, would have a beneficial impact in terms of flood protection.

Sunset Canyon is subject to mudflows during heavy rains, which the Sunset Upper Debris Basin Dam currently helps to manage by retaining water and sediment. The proposed Project would increase the capacity of the debris basin, allowing for greater amounts of flood waters, debris, and sediment to be retained. Therefore, the proposed Project would provide greater protection for downstream properties from this mudflow. There would be no impact.

4.9.3 MITIGATION PROGRAM

Regulatory Requirements

RR 4.9-1 The *Burbank Municipal Code* (Title 8, Chapter 2, Article 10) contains the City's regulations for storm water and runoff pollution control. The regulations prohibit illicit discharges; illicit connections to the storm drain system; and littering and other discharge of polluting or damaging substances. Storm water and runoff pollution mitigation measures are required for construction activities and National Pollutant Discharge Elimination System (NPDES) permits, and registration is required for industrial, commercial, and public facility sources. Runoff management requirements include good housekeeping provisions; installation of structural Best Management Practices (BMPs) and BMPs that are consistent with environmental goals.

The LACFCD's contractors and maintenance personnel will be required to comply with the City's regulations during construction and maintenance activities for the proposed Project. This RR shall be included by the LACFCD as notes in its Contractors' Specifications.

RR 4.9-2 Chapter 20.94.040 of the *Los Angeles County Code* states that it is unlawful to place within a floodway, channel, river, stream, wash, arroyo, reservoir, debris basin, spreading ground, or other flood-control facility, any refuse, rubbish, tin cans or other matter that may impede, retard, or change the normal direction of the flow of the flood, storm, and other waters, or that may be carried downstream

by such waters to the damage and detriment of downstream properties. It also prohibits material, either solid or liquid, from being placed in a river, stream, wash, arroyo, floodway, floodplain, flood-control channel, reservoir, debris basin, or spreading ground that will deteriorate the quality of water flowing or stored therein.

The LACFCD's contractors and maintenance personnel will be required to comply with this regulation during construction and maintenance activities for the proposed Project. This RR shall be included by the LACFCD as notes in its Contractors' Specifications.

Mitigation Measures

With compliance with existing City and County regulations, proposed Project construction and maintenance would not result in significant adverse impacts related to hydrology and water quality; therefore, no mitigation is required.

4.10 LAND USE AND PLANNING	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.10.1 ENVIRONMENTAL SETTING

The Sunset Upper Debris Basin Dam is surrounded by undeveloped land, with steep side slopes to the north and south of the dam; the debris basin to the east of the dam; and the access road/Country Club Drive to the southwest of the dam. Country Club Drive serves as the drainage channel, via sheet flow, for the lower segment of the canyon and provides direct access to 44 single-family residences along this road, north of Sunset Canyon Drive.

4.10.2 IMPACT ANALYSIS

a) No Impact

The Sunset Upper Debris Basin Dam is not located within a residential area or surrounded by residential uses that make up an established community. As noted above, the nearest residential uses are single-family homes located approximately 1,200 feet southwest of the Sunset Upper Debris Basin Dam. Implementation of the proposed Project would not displace or divide these residential uses located to the south. Therefore, the Project would not divide an established neighborhood and no impact would occur.

b) No Impact

The proposed Project would not change the current land use at the Sunset Upper Debris Basin Dam. The proposed Project is consistent with the current and proposed land use and zoning designations and would not require a City General Plan amendment or zone change. The proposed Project would also not conflict with regional plans, policies, or regulations related to land use, including the Southern California Association of Governments' (SCAG's) Regional Comprehensive Plan (RCP), the Regional Housing Needs Assessment (RHNA), or the Regional Transportation Plan (RTP), nor would it conflict with other regional plans since the proposed Project would not lead to or require a land use change and would not generate additional population, housing, or employment for the area. There would be no impact.

c) No Impact

No Habitat Conservation Plans (HCP) or Natural Community Conservation Plans (NCCP) have been adopted for the Project area. Therefore, no impact related to an HCP or NCCP would occur.

4.10.3 MITIGATION PROGRAM

Regulatory Requirements

None.

Mitigation Measures

No significant impacts related to land use and planning would occur; therefore, no mitigation is required.

4.11 <u>MINERAL RESOURCES</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.11.1 ENVIRONMENTAL SETTING

Sunset Canyon is not located near known oil, gas, or geothermal fields (DOGGR 2001). The nearest well is a dry hole located approximately 2.5 miles south of the Sunset Upper Debris Basin Dam (DOGGR 2010). There are no designated sand and gravel resource areas at Sunset Canyon or the surrounding area, as designated by the California Department of Conservation (DOC 1981). There are no mining activities in or near the Project site.

4.11.2 IMPACT ANALYSIS

a, b) No Impact

Sunset Canyon has not been used for mineral recovery or mining activities and no designated, regionally significant mineral resources are present on or near the Sunset Upper Debris Basin and Dam (DOC 1981). Thus, the proposed Project would not result in the loss of availability of locally important mineral resources. No impacts would occur.

4.11.3 MITIGATION PROGRAM

Regulatory Requirements

None

Mitigation Measures

No significant impacts related to mineral resources would occur; therefore, no mitigation is required.

4.12 <u>NOISE</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.12.1 ENVIRONMENTAL SETTING

The Project site is located within Sunset Canyon, on County-owned land within the City of Burbank. Noise-sensitive receptors generally refer to humans who are engaged in activities or who are utilizing land uses that may be subject to the stress of significant interference from noise. Residential dwellings are the primary noise-sensitive land uses because of the potential for increased and prolonged exposure to excessive, disturbing, or offensive interior or exterior noise levels that could interfere with sleeping, relaxation, and other daily activities. Hospitals, schools, places of worship, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The nearest existing noise and vibration-sensitive receptors to the Sunset Upper Debris Basin Dam site are single-family residences on Country Club Drive, approximately 1,200 feet southwest of the Project site.

The Sunset Upper Debris Basin Dam does not generate noise. Intermittent noise is generated by vehicles coming to and from the site for maintenance and inspection activities and construction equipment used for occasional sediment removal activities.

Applicable Regulations

The Burbank Municipal Code (Title 9, Article 2) contains the City's Noise Ordinance, which is designed to control unnecessary, excessive, and annoying sounds by setting limits that cannot be exceeded at adjacent properties. Section 9-3-208 of the City Code prohibits daytime (7:00 AM to 10:00 PM) machinery operation in residential areas from exceeding the established 55 A-weighted decibel (dBA) ambient noise level by more than 5 dBA.

Section 9-3-204 of the Code, includes the following exemption from the Noise Ordinance:

This article shall not apply to emergency work necessary to restore property to a safe condition following a public calamity, or work required to protect persons or property from an imminent exposure to danger, or work by a private or public utility when restoring utility service.

Section 9-1-1-105.8 of the City of Burbank Municipal Code, the City limits construction activities to the hours between 7:00 AM and 7:00 PM on Mondays through Fridays and between 8:00 AM and 5:00 PM on Saturdays. However, this restriction only applies to construction that is regulated by City building permits. The proposed Project's construction and maintenance activities are not subject to City building permits and are therefore not subject to this noise restriction.

4.12.2 IMPACT ANALYSIS

a, d) Less Than Significant Impact

Construction and routine maintenance activities at the Sunset Upper Debris Basin would be confined to the machinery operation hours defined by the City of Burbank (RR 4.12-1).

Construction noise generation would be related primarily to the use of heavy equipment at the site. Noise levels generated by heavy equipment can range from approximately 68 dBA to an excess of 100 dBA when measured at 50 feet. During construction at the Sunset Upper Debris Basin Dam site, the highest noise levels would occur with the operation of heavy construction equipment such as loaders and backhoes, which can generate maximum noise levels (L_{max}^{10}) of up to 85 dBA at 50 feet. However, due to ground absorption conditions from scattered bushes and trees and geometric spreading, these noise levels would diminish with distance from the construction site at a rate of approximately 7.5 dBA per doubling of distance. For example, a noise level of 85 dBA measured at 50 feet from the source to the receptor would be reduced to 77.5 dBA at 100 feet, 70 dBA at 200 feet, 62.5 dBA at 400 feet, and 55 dBA at 800 feet.

Because noise is attenuated by geometric spreading, the distance from the noise source to a receptor is a primary consideration in determining the actual noise level experienced at the receptor. For the Project, when two pieces of equipment operating concurrently at full power would be operating at the Sunset Upper Debris Basin Dam site, noise levels at the nearest homes located approximately 1,200 feet away would be less than 55 dBA L_{max} . Noise levels would likely be lower, as the calculation does not take into consideration attenuation due to local topography. A typical rural noise environment, such as the Project area, is in the 35 to 45 dBA range. In terms of increases in ambient noise, the operation of heavy construction equipment at the Sunset Upper Debris Basin Dam site would have the potential to be occasionally heard when the equipment is operating at maximum loads and power, but would not substantially increase ambient noise levels at the noise-sensitive receptors. These noise levels would be less than the City's 60 dBA L_{max} daytime limit for machinery operation, and no mitigation would be required for construction activities at the dam site.

¹⁰ L_{max} means the maximum dBA during a stated time period.

In addition, construction-related truck traffic would travel on Country Club Drive passing by single-family homes located along the road. Noise from construction-related truck traffic would be sporadic and would not cause significant noise increases to surrounding uses, creating a less than significant impact.

Noise generation related to mowing is even lower than that described above for construction equipment. Noise levels would thus be less than the City's daytime limit, so there would be no significant impact and no mitigation for noise would be required for maintenance mowing at the debris basin.

According to established practice with the City, cleanouts of the debris basin would be exempt from the City's Noise Ordinance as their purpose is to accomplish work required to protect persons or property from an imminent exposure to danger.

b) No Impact

Groundborne vibration generated by construction projects is usually highest during pile driving and rock blasting. There would be no pile driving or rock blasting needed to construct the Project. Construction activities at the Sunset Upper Debris Basin Dam site would involve the use of large construction equipment that may cause vibration, although this vibration is rarely perceived at distances greater than 25 feet due to attenuation with distance. Given the distance between the Project site and nearest sensitive uses located approximately 1,200 feet away, there would be no vibration impacts during construction activities.

Sediment removal within the expanded 25% and 100% contact lines would generate vibration from truck traffic similar to existing sediment removal operations. As discussed in Section 4.3, Air Quality, while a greater volume of sediment would be removed within the 25% contact line, periodic sediment removal would occur less frequently. Also, as discussed previously, the daily volume of trucks during sediment removal would remain the same. Therefore, there would be no additional vibration from truck traffic due to the increased debris basin capacity.

c) No Impact

Operation of the raised dam and access road would not generate noise. There would be no change in long-term maintenance and inspection activities associated with the proposed modifications at the Sunset Upper Debris Basin Dam. Sediment removal within the expanded 25% and 100% contact lines would generate noise similar to existing sediment removal operations. As discussed above, periodic sediment removal would occur less frequently, but would require a longer duration. Because there would be no change in daily equipment and truck traffic resulting from sediment-removal activities, there would be no noticeable increase in noise levels associated with sediment-removal activities. No permanent noise impacts would occur.

e, f) No Impact

The nearest airport to the site is the Bob Hope Airport, which is located approximately 3.7 miles west of the site. The Airport Influence Area for this airport does not include the Sunset Upper Debris Basin Dam or surrounding area (ALUC 2004). The proposed Project would not include the development of noise-sensitive uses. While aircraft overflights would be audible at the site, people working in the Project area would not be exposed to excessive aircraft noise levels. No impact would occur.

4.12.3 MITIGATION PROGRAM

Regulatory Requirements

RR 4.12-1 The LACFCD's contractors and maintenance personnel will comply with the City of Burbank's machinery operation hours during the construction of the proposed Project and mowing activities. This RR shall be included by the LACFCD as notes in its Contractors' Specifications.

Mitigation Measures

Project implementation would not result in significant impacts related to noise with implementation of RR 4.12-1; therefore, no mitigation is required.

4.13 POPULATION AND HOUSING	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.13.1 ENVIRONMENTAL SETTING

The Sunset Upper Debris Basin Dam is located in the Verdugo Mountains within the City of Burbank. The nearest residence is located on Country Club Drive, approximately 1,200 feet southwest of the Sunset Upper Debris Basin and Dam within the lower segment of Sunset Canyon. There are 44 single-family homes in Sunset Canyon on Country Club Drive.

4.13.2 IMPACT ANALYSIS

a) No Impact

The proposed Project would not involve housing or business development and would not lead to the introduction of permanent residents or employees into the site or the surrounding area. No change in the population or housing stock of the area would occur with the proposed Project. With proposed Project implementation, LACFCD employees and/or contractors would continue to provide inspection and maintenance services to the Sunset Upper Debris Basin Dam, including a visit approximately once a year for vegetation clearing and once a year for channel clearing. Site visits are irregular and would not increase with the proposed Project.

As with the existing condition, LACFCD staff and/or contractors at the debris basin and dam would not create permanent or substantial demand for housing, goods, or services in the area that could induce population growth. The construction and maintenance crew for the proposed Project would also not induce substantial or permanent population growth in the City of Burbank. Additionally, the proposed Project would not indirectly stimulate population growth by creating new public infrastructure, such as new roads or utility extensions. There would be no impacts related to direct or indirect population growth from the proposed Project.

b, c) No Impact

The nearest home is located approximately 1,200 feet (0.25 mile) from the dam. The proposed Project would not displace nearby homes or any other dwelling units on Country Club Drive. No impact would occur.

4.13.3 MITIGATION PROGRAM

Regulatory Requirements

None

Mitigation Measures

No significant impacts related to population or housing would occur; therefore, no mitigation is required.

4.14 <u>PUBLIC SERVICES</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.14.1 ENVIRONMENTAL SETTING

The Burbank Police Department and the Burbank Fire Department provide police and fire protection services in the Project area, respectively. The Burbank Police and Fire Headquarters Facility is located at 200 North Third Street, approximately two miles southwest of the site (Burbank 2013c). The Sunset Upper Debris Basin Dam does not generate a demand for schools, parks, or libraries. There are no schools or libraries near the site.

4.14.2 IMPACT ANALYSIS

a) i. and ii. No Impact

The proposed Project would not involve the construction of habitable structures, nor would the Project lead to population growth that could generate new demand for fire and police protection services. The proposed dam modification materials are not flammable, combustible, or explosive. Protective fences are present at the ends of the dam to prevent access to the top of the dam. In addition, vehicle access to the site is restricted by an access barrier at the end of Country Club Drive. The improvements to the Sunset Upper Debris Basin Dam would not generate increased demand for fire and police protection services, directly or indirectly. No new or physically altered fire or police protection facilities would be required to provide service to the dam and debris basin. There would be no impact.

a) iii. through v. No Impact

As discussed in Section 4.13, Population and Housing, the proposed Project would not generate population, either directly or indirectly. Thus, no additional demand for schools, libraries, or other public facilities would be generated by the proposed Project. There would be no impact.

4.14.3 MITIGATION PROGRAM

Regulatory Requirements

None.

Mitigation Measures

The proposed Project would not result in significant impacts related to public services; therefore, no mitigation is required.

4.15 RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<i>Would/does the project:</i>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.15.1 ENVIRONMENTAL SETTING

Wildwood Canyon Park, Stough Park, and De Bell Municipal Golf Course are located west of Sunset Canyon, and Brand Park is located to the east. These parks provide a variety of passive and active recreational features for local residents (Burbank 2013b).

4.15.2 IMPACT ANALYSIS

a, b) No Impact

As discussed in Section 4.13, Population and Housing, the proposed Project would not generate population, either directly or indirectly. Therefore, the proposed Project would not increase demand for local or regional recreational facilities. No recreational facilities are proposed as part of the Project. There would be no impact.

4.15.3 MITIGATION PROGRAM

Regulatory Requirements

None

Mitigation Measures

No significant impacts related to recreation would occur; therefore, no mitigation is required.

4.16 TRANSPORTATION/TRAFFIC	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system. Including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decreased the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.16.1 ENVIRONMENTAL SETTING

Regional access to the Sunset Upper Debris Basin Dam is provided by the Golden State Freeway (Interstate 5; I-5), which runs in a northwest-to-southwest direction through the City of Burbank and is part of the Highway and Roadway System in the County's Congestion Management Program (CMP) (Metro 2010). Local access to the site is provided by Country Club Drive, which extends northeasterly from Olive Avenue at Sunset Canyon Drive, and winds through the hillsides toward the Sunset Upper Debris Basin Dam. The access road from the terminus of Country Club Drive to the dam is closed to the public. There are no existing or proposed bicycle routes or trails on or near the Project site. There is no public transportation service near the site, although Metro Bus 183 runs on Bel Aire Drive, approximately 13 miles south of the Sunset Upper Debris Basin Dam (Metro 2011).

4.16.2 IMPACT ANALYSIS

a, b) Less Than Significant Impact

Construction Traffic

The proposed Project would generate new vehicle trips during construction associated with vehicle trips to and from the site; by the construction crew; by the transport of construction equipment that would be used at the site; and by trucks bringing in construction materials (i.e.,

concrete, asphalt, and reinforcement bars, among other materials) and disposing of construction debris during the six-month construction period. It is noted that proposed Project construction does not involve soil export or the high level of truck trips generally associated with sediment removal and placement. Vehicle trips during construction would add to existing traffic volumes on local and regional streets and freeways. While these vehicle trips would represent a small percentage of existing traffic volumes on freeways and major arterials and therefore, would be unlikely to cause or add to existing congestion levels, they would be adding some traffic onto Country Club Drive, which is a narrow, winding local residential street. Because Country Club Drive is only used by residents with homes along this road, the new vehicle trips during construction of the proposed Project would be a discernible increase in local traffic volumes compared to freeway traffic. Therefore, construction traffic would be limited to the daytime hours on weekdays and Saturdays, except federal holidays. Implementation of RR 4.12-1 would reduce this impact to a less than significant level. Construction of the proposed Project would comply with the Standard Specifications for Public Works Construction, 2012 Edition (Greenbook) which contains standards for traffic and access (i.e., maintenance of access, traffic control, and notification of emergency personnel) (RR 4.16-1).

Compliance with RR 4.12-1 from Section 4.12, Noise, and RR 4.16-1 would maintain traffic flow and access during the construction phase and impacts on existing traffic would be minimized, including traffic on Country Club Drive. Vehicle trips during construction would also be temporary and short-term. There would be a less than significant impact from construction traffic.

Operational Traffic

No change in operational inspection and maintenance trips, which involves approximately two to three visits per year, would occur with the proposed Project. However, the frequency of sediment removal at the debris basin would decrease since the debris basin's larger capacity would lead to longer time intervals before the 25% capacity is reached and sediment removal is required. Greater amounts of sediment would be removed each time (approximately 2,000 cy of increased sediment capacity). Since the cumulative amount of sediment removal would not change, the number of equipment and trucks used for sediment removal would also not change and no increase in daily truck trips associated with periodic sediment removal at the debris basin would occur. However, during major storms when the 100% contact line at the debris basin has the potential to be filled, sediment-removal activities would likely require more construction equipment and truck loads and more time to remove the additional up to 8,000 cy of sediment than what occurs in the existing condition. Increases in equipment and trucks during large cleanout events would add to local traffic volumes during the sediment removal, which would result in a discernible increase in local traffic volumes. Due to the narrow width of Country Club Drive, residents would be prohibited from parking on the street during the hours of cleanout operations.

The LACFCD has an established protocol to inform and coordinate with the jurisdiction in which a debris basin is located prior to any sediment removal that could involve heavy equipment and/or truck trips to maintain individual property access and to prevent the creation of traffic hazards. In accordance with standard practice, the LACFCD would contact the City of Burbank Manager and/or Public Works Director to coordinate the sediment-removal schedule and truck route; to discuss any additional constraints or requests; and to obtain a haul route permit (i.e., the same as in the existing condition). Residences and schools adjacent to truck haul routes (except freeways) are notified of the work schedules prior to the start of work and are provided contact information for complaint resolution. The County posts flyers in the community and along the haul routes to notify residents, schools, businesses, and City staff of the planned maintenance activities and haul routes and to incorporate any recommendations, conditions,

and/or alternatives and to obtain any necessary permits for the activities. Therefore, continued occasional traffic increases associated with periodic sediment-removal activities would be considered less than significant with implementation of the proposed Project.

The nearest CMP-designated highway to the site is I-5 (Metro 2010). Construction- and operation-generated trips are not expected to have a measurable impact (less than 0.1 percent) on the I-5, which carried over 200,000 vehicles per day near Burbank in 2009 (Caltrans 2010). Impacts would be less than significant and no mitigation is required.

c) No Impact

Sunset Canyon is not located within an airport land use plan. The nearest airport (Bob Hope Airport) is located 3.7 miles to the west of the Sunset Upper Debris Basin Dam. The proposed dam modifications would not generate air traffic or require air transportation. Thus, the proposed Project would not change air traffic levels at Bob Hope Airport and would not create safety risks or obstructions to air navigation. There would be no impact.

d) No Impact

The proposed Project would include raising the elevation of the access road at the eastern end of the dam, but would not permanently affect Country Club Drive or other public roadways. The alignment of the access road would remain the same, connecting to Country Club Drive south of the dam. There would be no impact.

e) Less than Significant Impact

The access road to the Sunset Upper Debris Basin Dam is used only by LACFCD personnel or contractors. The proposed Project would not be located on a public roadway used for emergency response or evacuation. The access road across the dam may serve as an emergency access or evacuation route for LACFCD employees or contractors. During construction activities, this road could be partially blocked by construction equipment but would remain available to serve as an evacuation route for the construction crew. The proposed Project construction and periodic sediment removal would require implementation of RR 4.16-1, and continued coordination with the City of Burbank shall occur to provide traffic-control devices and appropriate permitting for large equipment on Country Club Drive. Therefore, emergency access on Country Club Drive would remain available and impacts would be less than significant.

f) No Impact

New vehicle trips to the Project site would occur during the construction phase and during periodic sediment-removal activities. These construction- and operation-generated vehicle trips are unlikely to involve public transit due to the distance of the nearest bus line (as may be utilized by the construction crew) and the need for trucks for construction equipment, building materials, demolition debris, and sediment disposal. There are no bicycle routes, trails, or bus routes near the site, and Project-generated trips are unlikely to utilize bicycles or involve walking to and from the site. Therefore, no impact on alternative transportation systems or conflicts with alternative transportation policies, plans, or programs would occur with the Project.

4.16.3 MITIGATION PROGRAM

Regulatory Requirements

RR 4.16-1 The County's general construction requirements require the implementation of temporary traffic control in accordance with the Standard Specifications for Public Works Construction, 2012 Edition (Greenbook), which contains standards for traffic and access (i.e., maintenance of access, traffic control, and notification of emergency personnel). The contractor shall provide temporary traffic control in accordance with the Greenbook during construction activities. This RR shall be included by the LACFCD as notes in the Contractor Specifications.

Mitigation Measures

With compliance with RR 4.16-1 and the continued practice of inter-agency coordination prior to activities involving heavy equipment and/or truck trips, in this case with the City of Burbank, the proposed Project would not result in significant impacts related to transportation or traffic; therefore, no mitigation is required.

4.17 UTILITIES AND SERVICE SYSTEMS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.17.1 ENVIRONMENTAL SETTING

There are no water, sewer, power, or natural gas services that serve the Sunset Upper Debris Basin Dam. The existing debris basin and dam do not generate solid wastes requiring collection and disposal. Storm water through Sunset Upper Debris Basin Dam flows into an inlet pipe (for low flows) or over the spillway (for high flows) that convey water past the dam and into the concrete channel and access road downstream of the dam and over onto Country Club Drive.

4.17.2 IMPACT ANALYSIS

a, b, d, e) No Impact

The proposed Project would not demand potable water, nor would it generate wastewater requiring disposal and treatment. Water needed during construction would be provided as necessary by water truck. Construction activities at the site and maintenance within the expanded 100% contact line area and the expanded 25% contact line area would not generate wastewater that would necessitate treatment from the Los Angeles County Sanitation Districts. There would be no impact to the area's water supplies, wastewater conveyance, or wastewater treatment facilities.

c) No Impact

With the proposed Project, the Sunset Upper Debris Basin Dam would continue to function as a debris basin for sediment/debris retention. No change in the storm water flows through Sunset Canyon would occur with the proposed Project. However, during major storms, greater amounts of debris would be retained behind the dam and within the debris basin. This would improve storm drainage in downstream areas.

A six-inch storm drain pipe along Country Club Drive currently conveys nuisance runoff flows and non-storm flows from natural springs within the canyon area to the City's storm drainage system. No change in the capacity of the pipe would accompany the proposed Project. The proposed Project would have no impact on storm drain facilities.

f, g) Less than Significant Impact

The proposed Project would result in the generation of minor amounts of construction wastes, which would require disposal at the Burbank Landfill Site No. 3 or other nearby landfills. The Burbank Landfill Site No. 3 is located about 1.5 miles west of the site and has over 5.1 million cubic yards of remaining capacity and an anticipated closure date of 2053 (CalRecycle 2011).

The County has adopted an ordinance that requires all construction projects to recycle or reuse at least 50 percent of all C&D debris, soil, rock, and gravel removed from a project site unless a lower percentage is approved by the LACDPW (RR 4.17-1). Excavated soils are proposed for reuse as backfill to reduce the need of soil import and export. All waste generated during construction of the proposed Project would also be handled and disposed of in compliance with all applicable federal, State, and local statutes and regulations related to solid waste, including the County's Construction Waste Ordinance (RR 4.17-1). Impacts on landfill capacity would be limited and temporary and are considered less than significant. No conflict with solid waste regulations would occur.

The expanded 25% and 100% contact lines would not create a demand for utility services. Sediment behind the dam would continue to be removed by the LACFCD when the debris basin is at or over 25 percent full under unburned watershed conditions or at or over 5 percent full after a wildfire within the watershed. Although the amount of debris removed from the Project site from cleanouts under the 25% full condition would increase due to the expanded 25% contact line, the frequency of such cleanouts would decrease. Therefore, the overall volume of debris from such cleanouts over time would likely not significantly increase with Project implementation. As previously discussed, it would be speculative to assume that debris removal from the expanded 100% contact line would result in more or less sediment removal requirements than removal of the same debris that, without the proposed Project, would have to be removed from roads and properties that would have otherwise been inundated from overflow of the existing basin. Disposal of debris would continue to be made at the same disposals sites as are currently used for cleanouts of the facility. Impacts are therefore less than significant.

4.17.3 MITIGATION PROGRAM

Regulatory Requirements

RR 4.17-1 Chapter 20.87, Construction and Demolition Debris Recycling and Reuse, of the Los Angeles County Code requires at least 50 percent of all construction and demolition debris, soil, rock, and gravel removed from a project site to be recycled or reused unless a lower percentage is approved by the LACDPW. A Recycling and Reuse Plan (RRP) must be submitted to the LACDPW, Environmental Programs Division, after an application for a permit has been filed

for a project. The RRP must contain a Project description and the estimated total weight of the Project's construction and demolition (C&D) debris, with separate estimates for (1) soil, rock, and gravel; (2) other inert materials; and (3) all other Project C&D debris. The ordinance also requires that annual progress reports be submitted to the LACDPW for review. The contractor shall comply with the County's regulations for construction and demolition debris recycling and reuse, as part of the Project construction. This RR shall be included by the County as notes in the Contractor Specifications.

Mitigation Measures

With compliance with RR 4.17-1, the proposed Project would not result in significant impacts related to utilities or service systems; therefore, no mitigation is required.

4.18 MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Does the project:				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.18.1 MANDATORY FINDINGS OF SIGNIFICANCE ANALYSIS

a) Less than Significant with Mitigation

As discussed in Section 4.4, Biological Resources, the proposed Project would have the potential to impact sensitive biological resources. With implementation of MMs 4.4-1 through 4.4-4, impacts to biological resources would be reduced to a less than significant level. Therefore, the proposed Project would not degrade the quality of the environment so as to substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or reduce the number of or restrict the range of a rare or Endangered plants or animals.

As discussed in Section 4.5, Cultural Resources, impacts on human remains would be less than significant with compliance with existing regulations. Impacts on unknown archaeological or paleontological resources would be less than significant. The proposed Project would not eliminate important examples of the major periods of California history or prehistory.

b) Less than Significant with Mitigation

The impacts of the proposed Project would be limited in both intensity and geographic scope due to the size and type of improvements that would be built and its location at an elevation higher than any planned developments in the City of Burbank. Since Project impacts would be less than significant after mitigation (for biological resources only) and would be minimal in scale, impacts associated with the proposed Project are not considered cumulatively considerable.

c) Less than Significant with Mitigation

Project construction and operation would not have the potential to generate significant adverse impacts on human beings, either directly or indirectly. Mitigation measures have been developed for potentially significant impacts on biological resources. Compliance with existing regulations and implementation of mitigation measures would reduce potential environmental impacts to less than significant levels.

SECTION 5.0 REFERENCES

The following references were used in the preparation of this IS/MND and are available for review at the County of Los Angeles Department of Public Works, Water Resources Division at 900 South Fremont Avenue, Annex Building, Second Floor, Alhambra, California 91803 or at the offices of BonTerra Consulting at 225 South Lake Avenue, Suite 1000, Pasadena, California 91101 during normal business hours.

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APPENDIX A

AIR QUALITY AND GREENHOUSE GAS ANALYSIS: CalEEMod DATA

Sunset Debris Basin
South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Other Asphalt Surfaces	1	Acre
Other Non-Asphalt Surfaces	1	Acre

1.2 Other Project Characteristics

Urbanization Urban Wind Speed (m/s) 2.2 Utility Company Los Angeles Department of Water & Power

Climate Zone 12 Precipitation Freq (Days) 31

1.3 User Entered Comments

Project Characteristics -
 Land Use - Assumes a maximum impacted area of 0.25 acres. Assumed 0.2 for the non-paved areas and 0.05 for the paved access road (2,400 sqft)
 Construction Phase - Demo 4/16-5/11; Grad 5/12-6/29; Dam const 7/2-9/18;
 Geobrugg 8/20-24; Pave 9/19-28; 20-35-57-5-8
 Off-road Equipment - Pave-Loader, Roller
 On-road Fugitive Dust - 25 mph for local roads
 Demolition - 50 cubic yards at 145#/cubic ft=98 tons

- Grading - maximum impacted area = 0.25 acres
- Construction Off-road Equipment Mitigation - water 2x per day
- Off-road Equipment - Demo-Saw, dozer, 1 loader
- Off-road Equipment - Grading-dozer, 2 loader/backhoe, 1 grader
- Off-road Equipment - Dam site-2 mixer, 2 forklift, 2 loader, 1 welder, 1 other
- Off-road Equipment - Geobrugg - loader, generator (4 drill)

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2012	4.40	34.42	20.85	0.04	5.43	2.00	7.28	2.90	2.00	4.74						3,805.57
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2012	4.40	34.42	20.85	0.04	2.53	2.00	4.37	1.31	2.00	3.15						3,805.57
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2012

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					0.10	0.00	0.10	0.00	0.00	0.00						0.00
Off-Road	1.71	11.91	7.55	0.01	0.89	0.89	0.89	0.89	0.89	0.89						1,169.53
Total	1.71	11.91	7.55	0.01	0.10	0.89	0.99	0.00	0.89	0.89						1,169.53

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.03	0.30	0.15	0.00	0.23	0.01	0.25	0.00	0.01	0.01						41.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.05	0.06	0.65	0.00	0.12	0.00	0.13	0.00	0.00	0.01						103.08
Total	0.08	0.36	0.80	0.00	0.35	0.01	0.38	0.00	0.01	0.02						144.56

Mitigated Construction On-Site

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.05	0.00	0.05	0.00	0.00	0.00						0.00
Off-Road	1.71	11.91	7.55	0.01		0.89	0.89		0.89	0.89						1,169.53
Total	1.71	11.91	7.55	0.01	0.05	0.89	0.94	0.00	0.89	0.89						1,169.53

Mitigated Construction Off-Site

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.03	0.30	0.15	0.00	0.23	0.01	0.25	0.00	0.01	0.01						41.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.05	0.06	0.65	0.00	0.12	0.00	0.13	0.00	0.00	0.01						103.08
Total	0.08	0.36	0.80	0.00	0.35	0.01	0.38	0.00	0.01	0.02						144.56

3.3 Grading - 2012

Unmitigated Construction On-Site

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					5.28	0.00	5.28	2.90	0.00	2.90						0.00
Off-Road	4.33	34.35	20.04	0.03	1.84	1.84	1.84	1.84	1.84	1.84						3,344.37
Total	4.33	34.35	20.04	0.03	5.28	1.84	7.12	2.90	1.84	4.74						3,344.37

Unmitigated Construction Off-Site

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.07	0.07	0.81	0.00	0.15	0.00	0.16	0.00	0.00	0.01						128.85
Total	0.07	0.07	0.81	0.00	0.15	0.00	0.16	0.00	0.00	0.01						128.85

Mitigated Construction On-Site

Category	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					2.37	0.00	2.37	1.30	0.00	1.30						0.00
Off-Road	4.33	34.35	20.04	0.03	1.84	1.84	1.84	1.84	1.84	1.84						3,344.37
Total	4.33	34.35	20.04	0.03	2.37	1.84	4.21	1.30	1.84	3.14						3,344.37

Mitigated Construction Off-Site

Category	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.07	0.07	0.81	0.00	0.15	0.00	0.16	0.00	0.00	0.01						128.85
Total	0.07	0.07	0.81	0.00	0.15	0.00	0.16	0.00	0.00	0.01						128.85

3.4 Upper Dam Site Construction - 2012

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road	3.28	24.36	14.01	0.03	1.45	1.45	1.45	1.45	1.45	1.45						3,130.04
Total	3.28	24.36	14.01	0.03	1.45	1.45	1.45	1.45	1.45	1.45						3,130.04

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road	3.28	24.36	14.01	0.03	1.45	1.45	1.45	1.45	1.45	1.45						3,130.04
Total	3.28	24.36	14.01	0.03	1.45	1.45	1.45	1.45	1.45	1.45						3,130.04

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00

3.5 Geobrugg installation - 2012

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.01	6.76	4.38	0.01	0.55	0.55	0.55	0.55	0.55	0.55						675.30
Total	1.01	6.76	4.38	0.01	0.55	0.55	0.55	0.55	0.55	0.55						675.30

Unmitigated Construction Off-Site

Category	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00

Mitigated Construction On-Site

Category	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.01	6.76	4.38	0.01	0.55	0.55	0.55	0.55	0.55	0.55			0.55			675.30
Total	1.01	6.76	4.38	0.01	0.55	0.55	0.55	0.55	0.55	0.55			0.55			675.30

Mitigated Construction Off-Site

Category	lb/day											CO2e				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2		NBio-CO2	Total CO2	CH4	N2O
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6 Paving - 2012

Unmitigated Construction On-Site

Category	lb/day											CO2e				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2		NBio-CO2	Total CO2	CH4	N2O
Off-Road	1.27	8.06	5.35	0.01	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	776.00
Paving	0.02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.29	8.06	5.35	0.01	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	776.00

Unmitigated Construction Off-Site

Category	lb/day											CO2e				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2		Non-Bio-CO2	Total CO2	CH4	N2O
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Worker	0.03	0.03	0.41	0.00	0.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00			64.43
Total	0.03	0.03	0.41	0.00	0.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00			64.43

Mitigated Construction On-Site

Category	lb/day											CO2e				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2		Non-Bio-CO2	Total CO2	CH4	N2O
Off-Road	1.27	8.06	5.35	0.01	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70			776.00
Paving	0.02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Total	1.29	8.06	5.35	0.01	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70			776.00

Mitigated Construction Off-Site

Category	lb/day										lb/day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.03	0.03	0.41	0.00	0.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.43
Total	0.03	0.03	0.41	0.00	0.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.43

Sunset Debris Basin
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Other Asphalt Surfaces	1	Acre
Other Non-Asphalt Surfaces	1	Acre

1.2 Other Project Characteristics

Urbanization Urban 12 Wind Speed (m/s) 2.2 Utility Company Los Angeles Department of Water & Power

Climate Zone 12 Precipitation Freq (Days) 31

1.3 User Entered Comments

Project Characteristics -
 Land Use - Assumes a maximum impacted area of 0.25 acres. Assumed 0.2 for the non-paved areas and 0.05 for the paved access road (2,400 sqft)
 Construction Phase - Demo 4/16-5/11; Grad 5/12-6/29; Dam const 7/2-9/18;
 Geobrugg 8/20-24; Pave 9/19-28; 20-35-57-5-8
 Off-road Equipment - Substituted the default forklift for the cement and mortar mixers
 Off-road Equipment - Pave-Loader, Roller
 On-road Fugitive Dust - 25 mph for local roads
 Demolition - 50 cubic yards at 145#/cubic ft=98 tons
 Grading - maximum impacted area = 0.25 acres
 Construction Off-road Equipment Mitigation - water 2x per day

- Waste Mitigation -
- Off-road Equipment - Demo-Saw, dozer, 1 loader
- Off-road Equipment - Grading-dozer, 2 loader/backhoe, 1 grader
- Off-road Equipment - Dam site-2 mixer, 2 forklift, 2 loader, 1 welder, 1 other
- Off-road Equipment - Geobrigg - loader, generator (4 drill)

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
2012	0.20	1.47	0.88	0.00	0.10	0.09	0.19	0.05	0.09	0.14						152.33
Total	0.20	1.47	0.88	0.00	0.10	0.09	0.19	0.05	0.09	0.14						152.33

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
2012	0.20	1.47	0.88	0.00	0.05	0.09	0.13	0.02	0.09	0.11						152.33
Total	0.20	1.47	0.88	0.00	0.05	0.09	0.13	0.02	0.09	0.11						152.33

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2012

Unmitigated Construction On-Site

Category	tona/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bic-CO2	NBic-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00			0.00			0.00
Off-Road	0.02	0.12	0.08	0.00		0.01	0.01		0.01	0.01			0.01			10.61
Total	0.02	0.12	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01			0.01			10.61

Unmitigated Construction Off-Site

Category	tona/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bic-CO2	NBic-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00			0.38
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00			0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00			0.88
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00			1.26

Mitigated Construction On-Site

Category	tona/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bic-CO2	NBic-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00			0.00			0.00
Off-Road	0.02	0.12	0.08	0.00		0.01	0.01		0.01	0.01			0.01			10.61
Total	0.02	0.12	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01			0.01			10.61

Mitigated Construction Off-Site

Category	ton/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBR-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.26

3.3 Grading - 2012

Unmitigated Construction On-Site

Category	tons/yr										MT/yr					CO2e
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05						0.00
Off-Road	0.08	0.60	0.35	0.00		0.03	0.03		0.03	0.03						53.08
Total	0.08	0.60	0.35	0.00	0.09	0.03	0.12	0.05	0.03	0.08						53.08

Unmitigated Construction Off-Site

Category	tons/yr										MT/yr					CO2e
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00						1.92
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00						1.92

Mitigated Construction On-Site

Category	tons/yr											M/yr				CO2e
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	
Fugitive Dust					0.04	0.00	0.04	0.02	0.00	0.02						0.00
Off-Road	0.08	0.60	0.35	0.00		0.03	0.03		0.03	0.03						53.08
Total	0.08	0.60	0.35	0.00	0.04	0.03	0.07	0.02	0.03	0.05						53.08

Mitigated Construction Off-Site

Category	tons/yr											M/yr				CO2e
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00						1.92
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00						1.92

3.4 Upper Dam Site Construction - 2012

Unmitigated Construction On-Site

Category	tons/yr											M/yr				CO2e
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	
Off-Road	0.09	0.89	0.40	0.00		0.04	0.04		0.04	0.04						80.90
Total	0.09	0.89	0.40	0.00	0.04	0.04	0.04	0.04	0.04	0.04						80.90

Unmitigated Construction Off-Site

Category	tons/yr										MT/yr					CO2e
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	NBio-CO2	Total CO2	CH4	N2O	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00

Mitigated Construction On-Site

Category	tons/yr										MT/yr					CO2e
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	NBio-CO2	Total CO2	CH4	N2O	
Off-Road	0.09	0.69	0.40	0.00	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04			80.90
Total	0.09	0.69	0.40	0.00	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04			80.90

Mitigated Construction Off-Site

Category	ton/yr										Mt/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00

3.5 Geobruigg installation - 2012

Unmitigated Construction On-Site

Category	ton/yr										Mt/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.53
Total	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.53

Unmitigated Construction Off-Site

Category	tons/yr										Mt/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

Category	tons/yr										Mt/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.53
Total	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.53

Mitigated Construction Off-Site

Category	tons/yr										Mt/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6 Paving - 2012

Unmitigated Construction On-Site

Category	ton/year										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.01	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00						2.82
Paving	0.00															0.00
Total	0.01	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00						2.82

Unmitigated Construction Off-Site

Category	ton/year										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.22
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.22

Mitigated Construction On-Site

Category	ton/year										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.01	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00						2.82
Paving	0.00															0.00
Total	0.01	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00						2.82

Mitigated Construction Off-Site

Category	tona/yr											Mty/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NIIP-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.22
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.22

APPENDIX B
BIOLOGICAL RESOURCES REPORT

January 24, 2013

Ms. Grace Yu
Department of Public Works
County of Los Angeles
900 South Fremont, 2nd Floor Annex
Alhambra, California 91803-1331

VIA EMAIL
gyu@dpw.lacounty.gov

Subject: Biological Resources Report for the Sunset Upper Debris Basin Dam Modification Project, City of Burbank, Los Angeles County, California

Dear Ms. Yu:

BonTerra Consulting conducted biological studies at the Sunset Upper Debris Basin for the Sunset Canyon Debris Control Study project in 2007–2008. These studies included a biological reconnaissance survey, focused surveys for special status plant species and coastal California gnatcatcher (*Poliioptila californica californica*), and a Jurisdictional Delineation (BonTerra Consulting 2008a–2008d). The impact area for the current Sunset Upper Debris Basin Dam Modification project site is located entirely within the study area for the previous project; therefore, the purpose of the 2011 survey was to conduct an updated reconnaissance survey to confirm that existing conditions at the Sunset Upper Debris Basin were similar to conditions previously observed during the 2008 surveys.

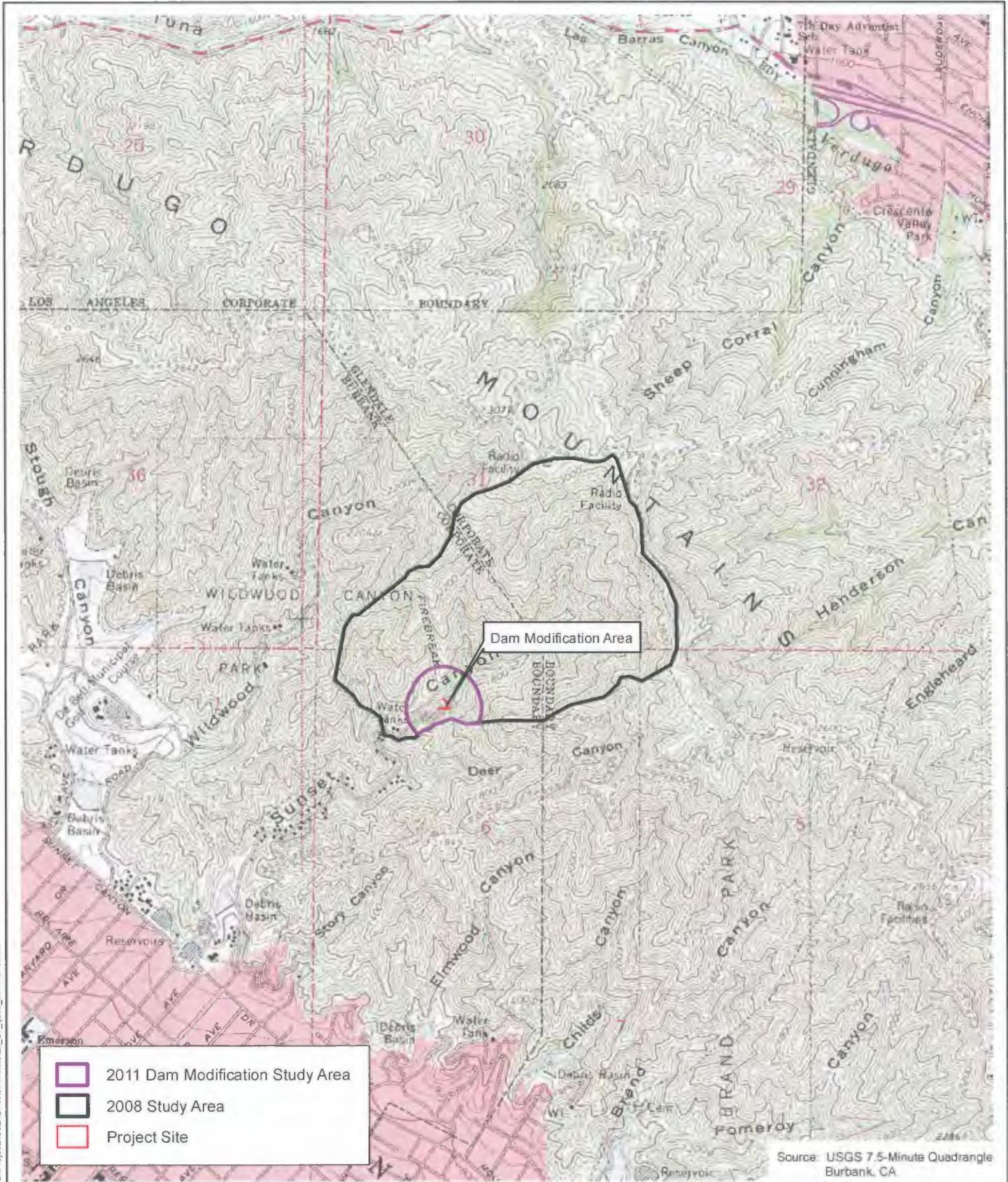
Project Site

The Sunset Upper Debris Basin Dam Modification project (hereafter referred to as the “project”) is located in the City of Burbank in Los Angeles County, California (Exhibit 1). The project site is located in the Verdugo Mountains and is largely surrounded by open space (including Wildwood Canyon Park and Brand Park) and lesser amounts of residential development. The project site is located north of Sunset Canyon Drive at the terminus of Country Club Drive. It is located on the Burbank U.S. Geological Survey (USGS) 7.5-minute quadrangle map, with an elevation range of about 1,550 to 1,620 feet above mean sea level (Exhibit 2). The proposed project would raise the height of the existing dam to increase the capacity of the basin..

METHODS

BonTerra Consulting Senior Biologist Amber Oneal conducted the updated reconnaissance survey on June 21, 2011, to evaluate current site conditions. This was a follow-up survey to a general plant and wildlife survey (including vegetation mapping) that was conducted on November 6, 2007, by BonTerra Consulting Senior Biologist Marc Blain and Botanist Andrea Edwards. The California Native Plant Society’s (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2007, 2011) and the California Department of Fish and Wildlife’s (CDFW; formerly California Department of Fish and Game) California Natural Diversity Database (CDFW 2007, 2011) were reviewed prior to the surveys to identify special status plants, wildlife, and habitats known to occur in the vicinity.





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Local Vicinity

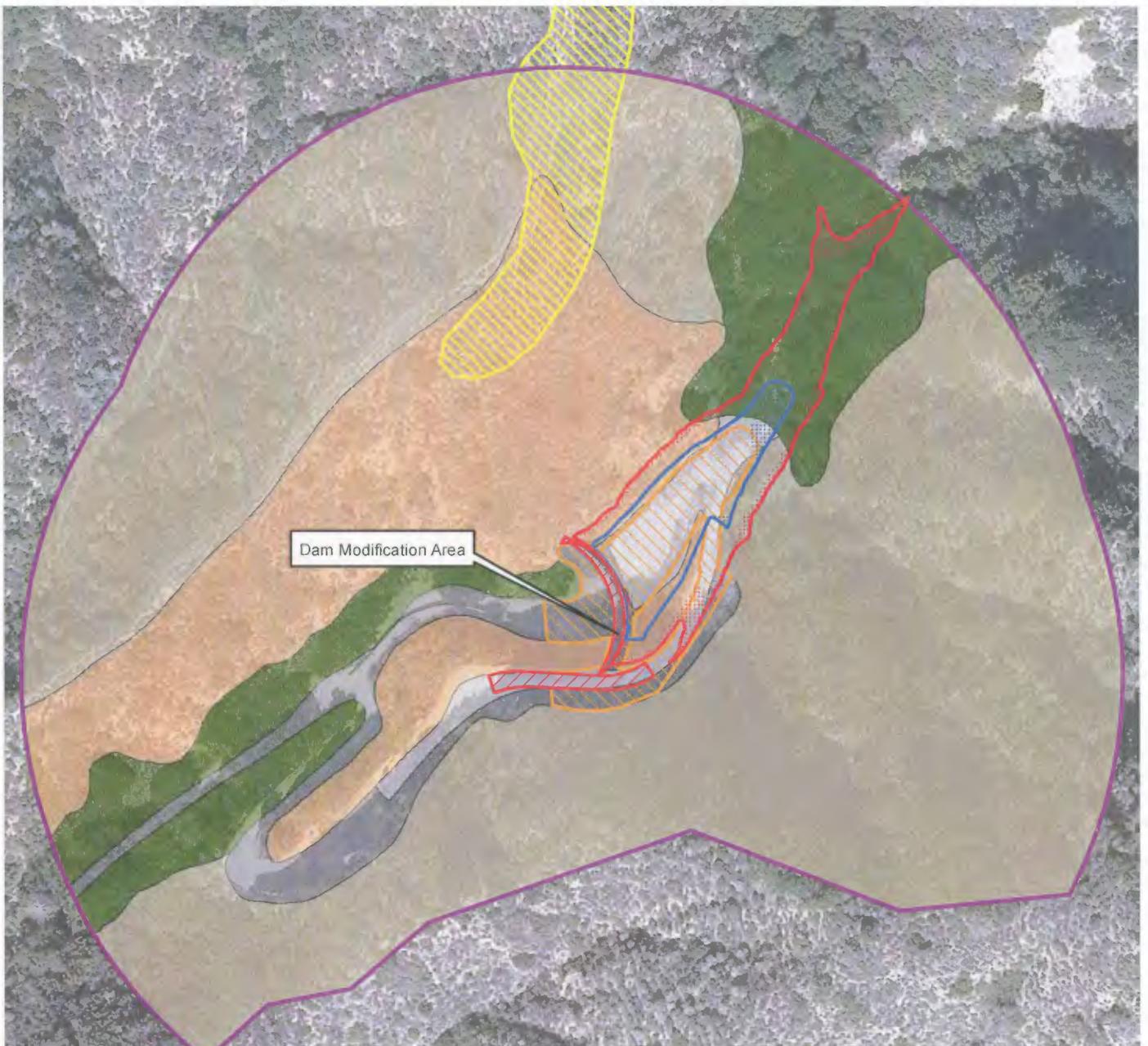
Sunset Upper Debris Basin Dam Modification Project



Exhibit 2



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	2011 Study Area	Debris Basin Contours	
	Plummer's Mariposa Lily Location		Proposed 100% Contact Line
Vegetation Types			Proposed 25% Contact Line
	California Sagebrush Scrub		Area of Increased 100% Contact Line (9,002sf)
	Mixed Chaparral		Area of Increased 25% Contact Line (3,279sf)
	Coast Live Oak Woodland	Construction Impacts	
	Disturbed		Permanent
	Developed		Temporary

Existing Vegetation at Sunset Upper Debris Basin Dam

Exhibit 3

Sunset Upper Debris Basin Dam Modification Project



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All species observed were recorded in field notes. Plant species were identified in the field or collected for subsequent identification using keys in Hickman (1993) and Munz (1974). Taxonomy follows Hickman (1993) and current scientific data (e.g., scientific journals) for scientific and common names.

Vegetation was mapped on an aerial photograph at a scale of 1 inch = 200 feet; nomenclature generally follows that of *The Vegetation Classification and Mapping Program: List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database* (CDFW 2003).

Active searches for reptiles and amphibians included lifting, overturning, and carefully replacing rocks and debris. Birds were identified by visual and auditory recognition. Surveys for mammals were conducted during the day and included searching for and identifying diagnostic sign including scat, footprints, scratch-outs, dust bowls, burrows, and trails. Taxonomy and nomenclature for wildlife generally follows Stebbins (2003) for amphibians and reptiles, American Ornithologists Union (2006) for birds, and Baker et al. (2003) for mammals.

RESULTS

Soils

Soil types in and around the survey areas generally consist of the Vista-Amargosa association (30 to 50 percent slopes, eroded), which occurs in steep mountainous areas; is well to excessively drained; and contains a coarse sandy loam surface layer and gravelly to coarse sandy loam subsoil above granitic rock (USDA 1969).

Vegetation Types

Vegetation types within the study area include California sagebrush scrub, mixed chaparral, and coast live oak woodland (Exhibit 3A); disturbed and developed areas were also present.

California sagebrush scrub is on the steep slopes adjacent to the debris basin. It also intergrades in a patchy distribution with chaparral throughout the rest of the survey area. This vegetation type is dominated by California sagebrush (*Artemisia californica*); other common species present include California buckwheat (*Eriogonum fasciculatum*), deerweed (*Lotus scoparius*), white sage (*Salvia apiana*), our Lord's candle (*Yucca whipplei*), and laurel sumac (*Malosma laurina*). Coastal sage scrub would not be impacted in the dam modification area.

Mixed chaparral covers the majority of the survey areas, varying in density based on aspect and topography. This vegetation type is dominated by chamise (*Adenostoma fasciculatum*), toyon (*Heteromeles arbutifolia*), California coffeeberry (*Rhamnus californica*), and laurel sumac. Other common species present include elderberry (*Sambucus mexicana*), holly-leaf cherry (*Prunus ilicifolia*), lemonadeberry (*Rhus integrifolia*), hoaryleaf ceanothus (*Ceanothus crassifolius*), mountain mahogany (*Cercocarpus betuloides*), and black sage (*Salvia mellifera*). Mixed chaparral would not be impacted in the dam modification area.

Coast live oak woodland occurs above the basin and along the drainage below the project site; it is dominated by coast live oak (*Quercus agrifolia*). Other common species present include red willow (*Salix laevigata*), mule fat (*Baccharis salicifolia*), western poison oak (*Toxicodendron diversilobum*), mugwort (*Artemisia douglasiana*), and California blackberry (*Rubus ursinus*). Additional occasional species include western sycamore (*Platanus racemosa*), bush monkeyflower (*Mimulus aurantiacus*), Southern California black walnut (*Juglans californica*),

California brickellbush (*Brickellia californica*), and the scrub and chaparral species listed above. Coast live oak woodland will not be impacted in the dam modification area.

Developed areas include all paved surfaces, concrete-lined channels, and other structures. Disturbed areas include dirt roads, fire breaks, and other mechanically disturbed areas that are generally devoid of vegetation.

Construction of the proposed dam modifications will occur on existing disturbed and developed areas (i.e., dam, access road, and gunite slopes) and within the 16,168-square foot (sf) area (approximately 0.37 acre) below the 25% capacity contact line, which is permitted for disturbance via an existing long term maintenance agreement. Specifically, construction of the proposed dam modifications would involve a total impact footprint of 29,115 sf (approximately 0.7 acre). The construction footprint includes 24,579 sf of temporary impact areas (e.g., construction staging, equipment operations) and 4,536 sf of permanent impact areas (e.g., footprint of additional dam and access road features). Disturbed and developed areas are considered to have no to low biological value to wildlife, and as such, impacts on these areas would be considered less than significant per California Environmental Quality Act (CEQA) guidelines. Vegetation types mapped below the 25% contact line are considered impacted via ongoing annual debris basin maintenance activities, and have been mitigated under the Section 1605 Agreement with CDFW. There would be no vegetation removal outside of the 25% contact line, as part of project construction. Therefore, there will be no additional impacts to vegetation resulting from construction of the proposed dam modifications.

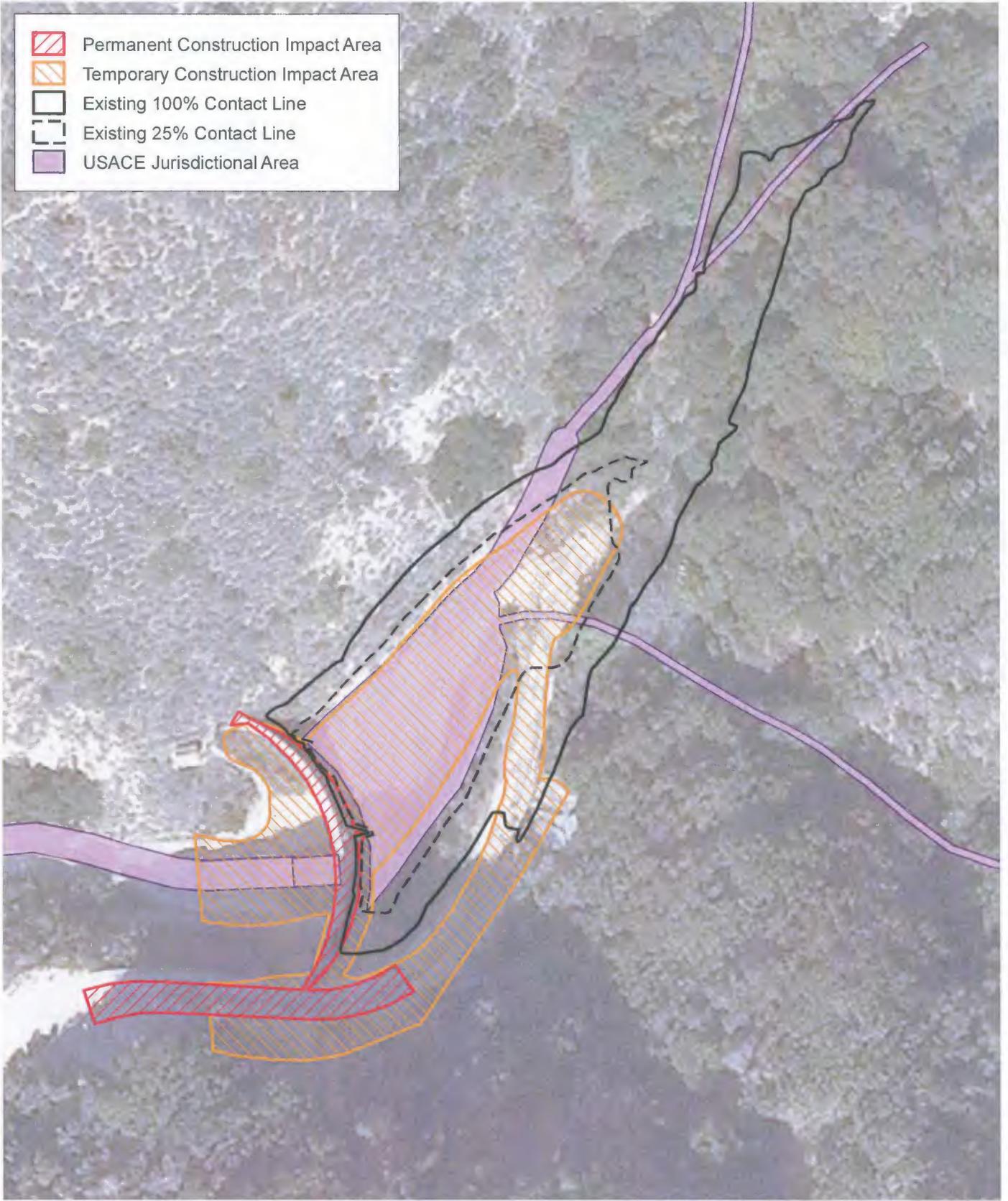
Long-term operation of the modified Sunset Upper Debris Basin Dam would lead to potential inundation and/or debris deposition within the expanded 25% and 100% contact lines. It should be noted that while heightening the dam will increase the debris basin capacity by 8,000 cubic yards allowing for the detainment of flows of larger storm events without overtopping, the change in dam height would not be expected to change the inundation frequency, inundation duration, or the flow regime upstream or downstream of the dam. The debris basin typically fills to an average of approximately 18% capacity (i.e., 18% of the existing 100% capacity contact line) each season; during larger storm events, the post-project basin may fill to a greater capacity than currently. However, this occurrence is expected to be extremely infrequent.

Table 1 summarizes the vegetation types within the expanded 25% and 100% contact lines. As shown, California sagebrush scrub, coast live oak woodland, mixed chaparral, developed, and disturbed areas occur within the post-project contact lines. Among these, California sagebrush scrub and coast live oak woodland are considered sensitive natural vegetation communities.

**TABLE 1
 VEGETATION TYPES WITHIN POST-PROJECT 25% AND 100% CONTACT
 LINES**

Vegetation Type	Post-Project 25% Contact Line [sf (acre)]	Post-Project 100% Contour Line [sf (acre)]
California sagebrush scrub	611.4 (0.01)	1,696.6 (0.04)
Coast live oak woodland	1,483.6 (0.03)	5,174.8 (0.12)
Mixed chaparral	298.9 (0.007)	1,041.8 (0.02)
Developed	26.7 (0.0006)	230.0 (0.005)
Disturbed	858.5 (0.02)	858.5 (0.02)
Totals	3,279.1 sf (0.08)	9001.7 sf (0.21)
sf-square feet Note: Totals may not add due to rounding.		

-  Permanent Construction Impact Area
-  Temporary Construction Impact Area
-  Existing 100% Contact Line
-  Existing 25% Contact Line
-  USACE Jurisdictional Area



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Jurisdictional Resources: U.S. Army Corps of Engineers

Exhibit 4

Sunset Upper Debris Basin Dam Modification Project



Bonterra
CONSULTING

As shown in Table 1, the change in elevation of the 100% contact line will result in an inundation area increase of approximately 9,002 sf (0.21 acre) between the existing and post-project contact lines. The additional area includes California sagebrush scrub, coast live oak woodland, and mixed chaparral, as well as developed and disturbed areas. During a storm event that produces storm water and/or debris flows that are greater than the existing debris basin capacity of 20,000 cy, some or all of the additional area of 9,002 sf would be subject to potential inundation. However, as noted above, rain intensity and frequency, which define the flow regime upstream and downstream of the dam, would not change with the project. Regardless, the Section 1605 Long-Term Streambed Alteration Agreement for the Debris Basin Maintenance Program (No. 1600-2008-0290-R5)(Section 1605 Agreement) with the CDFW that was signed on August 15, 2011, and other permits related to long-term maintenance activities, would require amendments subsequent to proposed project implementation to reflect the expanded 25% and 100% contour lines. This requirement has been included as a recommended mitigation measure. Impacts to vegetation within the post-project 100% contour line, including the minimal amount of 0.16 acres of sensitive vegetation types (i.e., 0.04 acre California sagebrush scrub and 0.12 acre of coast live oak woodland), are considered less than significant under the CEQA with appropriate permit amendments.

As shown in Table 1, the inundation area of the 25% contact line would be increased by approximately 3,279 sf (0.08 acre) between the existing and post-project contact lines. The expanded 25% contact line would encompass areas of California sagebrush scrub, coast live oak woodland, and mixed chaparral, as well as developed and disturbed areas. The change in the debris basin's post-project 25% contact line has an associated capacity increase of 2,000 cy (for a proposed total capacity of 7,000 cy), and the additional 3,279 sf of area would be subject to potential inundation. The post-project 25% contact line inundation area would contain 0.04 acre of sensitive vegetation types (i.e., 0.01 acre of California sagebrush scrub and 0.03 acre of coast live oak woodland). Because of the minimal amount of sensitive vegetation within the post-project inundation area of the 25% contact line (0.04 acre), the potential inundation of this vegetation would be considered a less than significant impact under CEQA. Regardless, as discussed above, the Section 1605 Agreement, and other permits related to long-term maintenance activities, would require amendments subsequent to proposed project implementation to reflect the expansion of the inundation area of the 25% contact line.

Wildlife

Amphibians require moisture for at least a portion of their life cycle and many require standing or flowing water for reproduction. Although no amphibians were observed during the survey, amphibian species such as the western toad (*Bufo boreas*) and Pacific treefrog (*Hyla regilla*) are expected to occur. Other native amphibian species that may occur include the black-bellied slender salamander (*Batrachoseps nigriventris*) and California treefrog (*Hyla cadaverina*).

Diversity and abundance of reptiles typically varies with vegetation type and substrate characteristics. The western fence lizard (*Sceloporus occidentalis*) and side-blotched lizard (*Uta stansburiana*) were observed during the survey. Other native reptile species that are expected to occur include western skink (*Eumeces skiltonianus*), southern alligator lizard (*Elgaria multicarinata*), gopher snake (*Pituophis catenifer*), coachwhip (*Masticophis flagellum*), common kingsnake (*Lampropeltis getula*), and western rattlesnake (*Crotalus viridis*).

Birds utilize nearly all vegetation types with greater variety and higher densities occurring in particularly valuable vegetation types. Riparian habitats are extremely important to birds, providing food, water, and cover throughout the year. These habitats also provide important breeding habitat for a wide variety of species.

Bird species observed during the survey include red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), western scrub-jay (*Aphelocoma californica*), wrentit (*Chamaea fasciata*), northern rough-winged swallow (*Stelgidopteryx serripennis*), spotted towhee (*Pipilo maculatus*), California towhee (*Melospiza [Pipilo] crissalis*), house finch (*Carpodacus mexicanus*), and American goldfinch (*Spinus [Carduelis] tristis*). Bird species observed during previous surveys that would be expected to occur include mourning dove (*Zenaidura macroura*), northern flicker (*Colaptes auratus*), black phoebe (*Sayornis nigricans*), common raven (*Corvus corax*), oak titmouse (*Baeolophus inornatus*), bushtit (*Psaltiriparus minimus*), Bewick's wren (*Thryomanes bewickii*), common yellowthroat (*Geothlypis trichas*), song sparrow (*Melospiza melodia*), and lesser goldfinch (*Spinus [Carduelis] psaltria*).

Mammal species expected to occur include the following small mammal species: desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), and Botta's pocket gopher (*Thomomys bottae*). A variety of bat species are expected to occur as well, including long-legged myotis (*Myotis volans*), California myotis (*Myotis californicus*), western pipistrelle (*Pipistrellus hesperus*), big brown bat (*Eptesicus fuscus*), hoary bat (*Lasiurus cinereus*), and Brazilian free-tailed bat (*Tadarida brasiliensis*). Medium and large-sized mammals expected to occur include the raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), coyote (*Canis latrans*), bobcat (*Lynx rufous*), and mountain lion (*Puma [Felis] concolor*).

Special Status Species and Habitats

Special status species and habitats have been given recognition by federal and/or State agencies, as well as private conservation organizations, because of a perceived or documented decline in the population size or geographic range of the species or habitat.

Plant Species

Focused surveys for special status plant species were conducted throughout the previous larger study area in Spring/Summer 2008. Three special status plant species were observed during the surveys: Plummer's mariposa lily (*Calochortus plummerae*), Southern California black walnut (*Juglans californica*), and ocellated lily (*Lilium humboldtii* ssp. *ocellatum*).

Plummer's mariposa lily is a CNPS List 1B.2 species, which is considered rare, threatened, and endangered in California. This perennial bulbiferous herb typically blooms between May and July (Munz 1974). It occurs in dry rocky places and brush between sea level and about 5,000 feet above msl in elevation, in chaparral, coastal sage scrub, and yellow pine forest habitats (Munz 1974; Hickman 1993). This species is known from Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties (CNPS 2011). A total of 36 individuals were observed along a former fire break on the ridge to the north of the dam (Exhibit 3A). This area would not be impacted by the proposed project during project construction.

Southern California black walnut is a CNPS List 4.2 species. It is a perennial deciduous tree endemic to southwestern California that is observable year-round (CNPS 2011). It is locally common between sea level and about 4,500 feet above msl and is often found in oak woodland habitats (Munz 1974). It occurs on slopes and in canyons (Hickman 1993). This species is known from Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, and Ventura counties (CNPS 2011). Many Southern California black walnuts were observed within the previous larger survey area, scattered along drainages occurring in coast live oak woodland vegetation. None of the walnut trees would be impacted by the proposed project because no vegetation would be removed during project construction.

Ocellated lily is a CNPS List 4.2 species. It is a bulbiferous herb endemic to California that typically blooms between March and July (CNPS 2011). It occurs between sea level and about 3,000 feet above msl, in gravelly soil in gulleys and canyons, usually in chaparral and oak woodland habitats (Munz 1974). This species is known from Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, San Luis Obispo, and Ventura Counties, and on Anacapa Island, Santa Cruz Island, and Santa Rosa Island (CNPS 2011). Many ocellated lilies were observed within the previous larger survey area, scattered along drainages in coast live oak woodland vegetation. As discussed above, approximately 0.12 acre of coast live oak woodland within the 100% contact line inundation area and approximately 0.03 acre of oak woodland would be potentially impacted by inundation subsequent to construction of the dam modifications. The total of 0.15 acre of oak woodland is a minimal amount of this vegetation type within which scattered ocellated lilies were observed in the larger study area. Therefore, while some ocellated lilies may be impacted by inundation where present within the small area of oak woodland within the expanded contact lines, the majority of lilies would be avoided as only a minimal portion of the oak woodland in the survey area is within the expanded contact lines. Seeds of the lily species may wash down into the debris basin or channel from upstream locations and a few individuals may occur within the impact area during construction. Impacts on CNPS List 4.2 species are typically considered less than significant under CEQA since this species is not considered to meet the criteria of Section 15380.¹

Wildlife Species

Focused surveys for the federally Threatened coastal California gnatcatcher were conducted throughout the previous larger study area in Spring/Summer 2008, and no coastal California gnatcatchers were observed. Although this species has not been documented as a breeder in the immediate vicinity, the site is located within this species' range, and there have been observation of individuals within the region. Although coastal sage scrub habitat is located adjacent to project site, raising the dam would not impact coastal sage scrub habitat. If the coastal California gnatcatcher were to occur at the project site in the future, construction noise and human activity could indirectly impact coastal California gnatcatchers (if present). Therefore, it is recommended that a pre-construction gnatcatcher survey be conducted prior to construction to confirm the absence of this species. If the coastal California gnatcatcher is present during the pre-construction surveys, the U.S. Fish and Wildlife Service (USFWS) should be notified to determine the appropriate avoidance and minimization measures (e.g., construction timing, noise abatement measures) that would be necessary.

Other Species of Special Concern that have potential to occur on the site include the western spadefoot (*Spea hammondi*), coast (San Diego) horned lizard (*Phrynosoma coronatum* [blainvillii population]), silvery legless lizard (*Anniella pulchra pulchra*), loggerhead shrike (*Lanius ludovicianus*), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), and the yellow warbler (*Dedroica petechia*). Project impacts are limited to developed and disturbed areas, and are therefore expected to have a limited impact on these species. Therefore, impacts would be considered less than significant.

Habitats

Coastal sage scrub occurs throughout the undeveloped foothills of Southern California; it has high potential to support special status wildlife species, and impacts to it typically require mitigation in Los Angeles County. California sagebrush scrub, a type of coastal sage scrub,

¹ Section 15380 of CEQA states that if a species can be shown to meet the definition of Rare, Threatened, or Endangered, it can be treated as such even if it is not formally listed by the resource agencies.

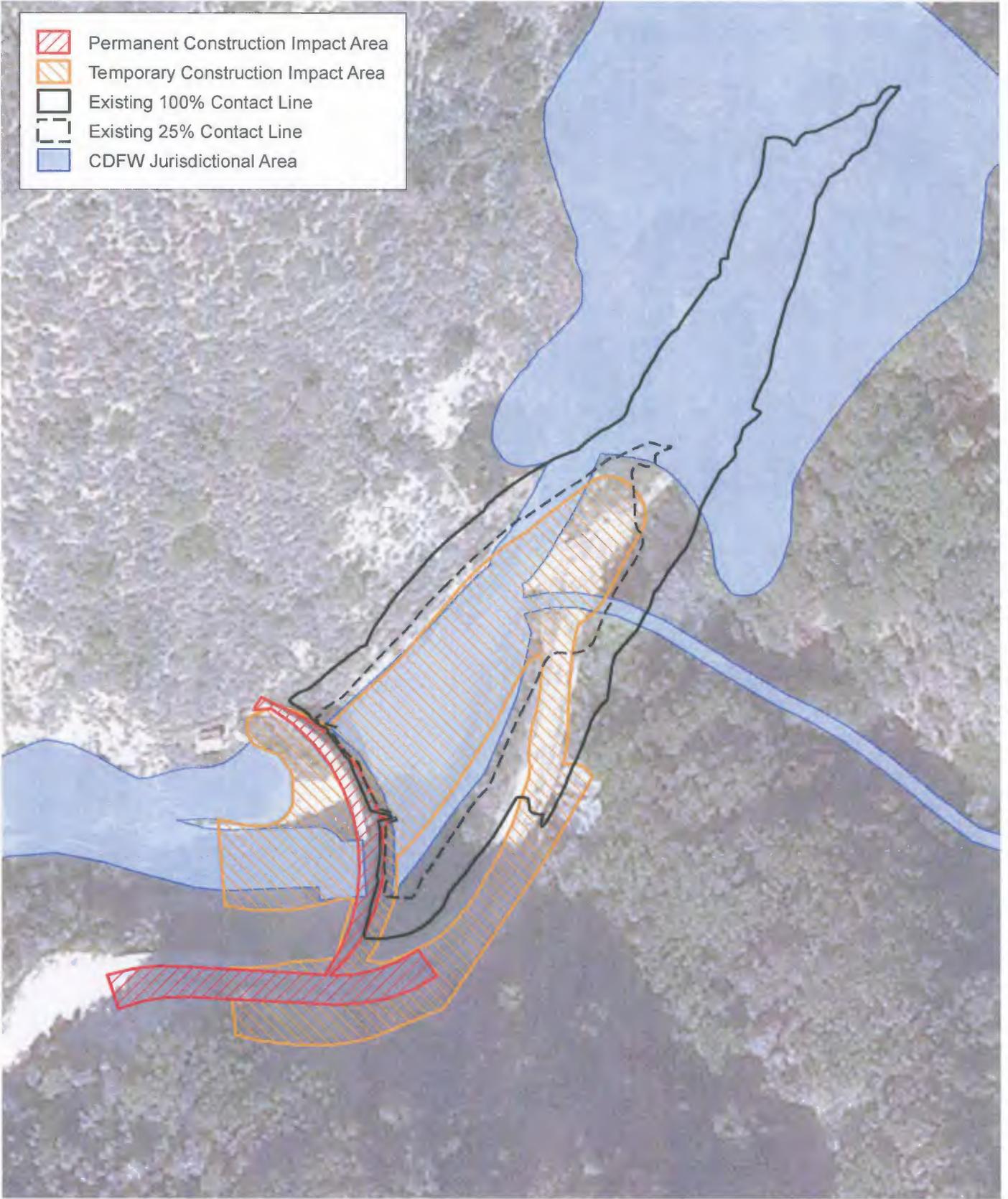
occurs within the survey areas. Coast live oak woodland is a special status vegetation type that occurs above the basin and along the drainage below the project site. Oak forests and woodlands provide food, cover, and nesting or denning habitat for many wildlife species. Impacts to oak woodlands, or individual oak trees would require mitigation in accordance with the County of Los Angeles Oak Tree Ordinance. The proposed project would not remove any coastal sage scrub or coast live oak trees during project construction; therefore, there would be no direct impact to these habitats. As discussed above under "Vegetation Types", minimal areas of these habitats have the potential to be indirectly impacted through inundation of the expanded 100% and 25% contact lines. Impacts to vegetation within the expanded 100% contact line, including the minimal amount of 0.16 acres of sensitive vegetation types (i.e., 0.04 acre California sagebrush scrub and 0.12 coast live oak woodland), are considered less than significant under the CEQA with appropriate permit amendments. Because of the minimal amount of sensitive vegetation within the expanded 25% contact line (0.04 acre), the potential inundation of this vegetation would be considered a less than significant impact under CEQA. Regardless, the Section 1605 Agreement, and other permits related to long-term maintenance activities, would require amendments subsequent to proposed project implementation to reflect the expansion of the 25% contact line.

Jurisdictional Areas

Drainages within the current survey area are considered jurisdictional by the U.S. Army Corps of Engineers (USACE) (Exhibit 4) and the CDFW (Exhibit 5). A jurisdictional delineation of the previous larger study area was conducted in 2008. Construction of the proposed project would impact a total of 0.233 acre of "Waters of the U.S.", including 0.009 acre of wetlands under the jurisdiction of the USACE, and 0.258 acre of resources under the jurisdiction of CDFW, including both permanent and temporary construction impact areas (Table 1; Exhibits 4 and 5).

The Los Angeles County Department of Public Works currently holds USACE, CDFW, and Regional Water Quality Control Board (RWQCB) permits/agreements authorizing maintenance on the dam structure and associated debris basin for impacts on areas within the 25% contact line; under these permits/agreements, areas within the 25% contact line can be repeatedly impacted by maintenance activities (USACE Regional General Permit File No. SPL-2003-00411-KW; CDFW Streambed Alteration Agreement No. 1600-2008-0290-R5; and RWQCB File No. 02-144-2008 *Renewal*). Of the area that would be impacted by the proposed project, a total of 0.205 acre of "Waters of the U.S." and 0.201 acre of resources under the jurisdiction of CDFW are within the 25% contact line authorized for routine maintenance. A total of 0.028 acre of "Waters of the U.S.", including 0.009 acre of wetlands, under the jurisdiction of the USACE and 0.055 acre of resources under the jurisdiction of CDFW that would be impacted by the project fall outside of the 25% contact line and therefore would require amendments to existing permits/agreements or new permits/agreements authorized by the USACE, RWQCB, and CDFW. This requirement is a recommended mitigation measure.

-  Permanent Construction Impact Area
-  Temporary Construction Impact Area
-  Existing 100% Contact Line
-  Existing 25% Contact Line
-  CDFW Jurisdictional Area



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Jurisdictional Resources: California Department of Fish and Wildlife

Exhibit 5

Sunset Upper Debris Basin Dam Modification Project



**TABLE 2
 JURISDICTIONAL RESOURCE IMPACTS FROM PROJECT CONSTRUCTION (ACRES)**

	Permanent Impacts			Temporary Impacts			TOTAL IMPACTS
	Within 25% Contact Line	Outside 25% Contact Line	Total	Within 25% Contact Line	Outside 25% Contact Line	Total	
<i>USACE (Total)</i>	0.000	0.001	0.001	0.205	0.027	0.232	0.233
Non-wetland "Waters of the U.S."	0.000	0.000	0.000	0.205	0.019	0.224	0.224
Wetlands	0.000	0.001	0.001	0.000	0.008	0.008	0.009
<i>CDFW (Total)</i>	0.000	0.002	0.002	0.201	0.055	0.256	0.258

Significant Ecological Areas

The Project is located within an area designated by the County of Los Angeles as the Verdugo Hills Significant Ecological Area (SEA), established in 1976. However, the SEA is entirely within the cities of Glendale, Burbank, and Los Angeles. Therefore, the County's SEA program, and associated SEATAC review process, is not applicable to the Verdugo Hills SEA.

Other Considerations

Wildlife Movement

Wildlife are expected to move along both the ridgelines and drainages in and around the survey area. The proposed project would modify an existing dam structure, but would not create a new structure or modify the contacts of the basin in a way that would constitute a barrier to wildlife movement. Therefore, the proposed project would not be expected to disrupt or discourage long-term movement and use within the study area. Wildlife in the survey area may avoid the immediate area during the day when construction is occurring, but would still be expected to use the survey area at night. The temporary impact on wildlife movement and use would be considered short-term in nature, and would therefore be considered less than significant.

Trees

No trees would be removed or require trimming during project construction; therefore, there would be no impact on coast live oak or Southern California black walnut trees and no permits would be needed.

Nesting Raptors

The red-tailed hawk is suspected to be breeding in the oak trees adjacent to the basin based on behavior observed during the June 2011 survey. Additionally, several other hawk and owl species have potential to nest in the woodlands adjacent to the project site. The *California Fish and Game Code* prohibits activities that have the potential to disturb active raptor nests; this protection generally ceases once nesting activity is complete. If possible, it is recommended that the proposed project (and any periodic maintenance) be constructed outside of the raptor nesting season (February 1 to July 30). If construction must occur within this timeframe, a survey for active raptor nests would be required immediately prior to any construction activities, including geotechnical testing. If a raptor nest is observed during the survey, it would be

protected by an appropriate buffer zone designated by CDFW, where no construction activity would be allowed until the nest had failed or the nestlings had fledged. This could be a constraint on proposed construction or periodic maintenance activities.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects the nests of all native bird species, including common species such as mourning dove, Anna's hummingbird, and house finch. In addition to protecting nests located in native trees and shrubs, it also protects nests located on bare ground and on structures. If possible, construction should be initiated outside the peak bird nesting season (March 1 to August 30) to avoid impacts on nesting birds. If construction (or period maintenance) must be initiated during this time period, the CDFW often requires nesting bird surveys prior to vegetation clearing to find all bird nests. Each nest observed during the survey would be protected by an appropriate buffer zone designated by CDFW, where no construction activity would be allowed until the nest had failed or the nestlings had fledged where no construction activity is allowed until the nest has failed or until the nestlings have fledged. This can be a constraint on proposed construction or periodic maintenance activities.

RECOMMENDED MEASURES

The following measures are recommended to avoid or minimize impacts on biological resources:

- A pre-construction survey for coastal California gnatcatcher should be conducted prior to construction to confirm the absence of this species from the coastal sage scrub adjacent to the project site. The USFWS should be contacted to determine the appropriate pre-construction survey methodology (e.g., full protocol survey or a reduced-visit modified survey protocol). If coastal California gnatcatcher is observed during the pre-construction survey, the USFWS will be contacted to discuss and approve avoidance and minimization measures recommended by a qualified gnatcatcher Biologist. These may include, but would not be limited to, biological monitoring by a Biologist permitted for this species, construction/maintenance outside the breeding season (February 14 to August 15), or noise restrictions near the occupied area.
- The Los Angeles County Department of Public Works should verify that any jurisdictional areas temporarily impacted by the proposed project that are within the approved maintenance area (i.e., 25% contact line) would be in compliance with the existing permits/agreements for debris basin maintenance (USACE Regional General Permit File No. SPL-2003-00411-KW; CDFW Streambed Alteration Agreement No. 1600-2008-0290-R5; and RWQCB File No. *02-144-2008 Renewal*); the permits may need to be amended to authorize improvements to the dam. All conditions of these permits must be followed during construction of the proposed project. These conditions include, but are not limited to, biological monitoring during the initiation of construction, use of Best Management Practices (BMPs) to protect water quality, flagging of the construction site, and flagging an exclusion area to prevent work within the dripline of oaks.
- An amendment to the existing permits/agreements or a new permit/agreement would be required from the USACE, the RWQCB, and the CDFW for impacts on jurisdictional areas outside the 25% contact line. This includes confirmation that there would be no additional flooding or inundation (as compared to existing conditions) expected outside of the 25% capacity contact as a result of the proposed project. Mitigation for impacts on jurisdictional areas may include preservation or restoration of riparian habitat at a ratio identified in the USACE/CDFW permits/agreements, typically ranging from 1:1 to 5:1

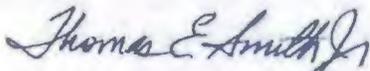
(depending on the quality of the habitat impacted). No discharge or fill material would be allowed to impact the creeks in the survey area. This would include runoff carrying sediment from construction activities. BMPs would be required to avoid indirect impacts on these streams.

- If construction would be initiated between February 1 and July 30, a survey for active raptor nests is recommended seven days prior to commencement of any construction activities (or as otherwise directed in the CDFW Streambed Alteration Agreement). Restrictions may be placed on construction/maintenance activities in the vicinity of any active nest until the nest is no longer active. If a raptor nest is observed during the survey, it would be protected by an appropriate buffer zone designated by CDFW, where no construction activity would be allowed until the nest had failed or the nestlings had fledged. Once the nest is no longer active, construction can proceed within the buffer zone.
- If construction would be initiated between March 1 and August 31, a survey for active bird nests is recommended three days prior to commencement of any construction activities (or as otherwise directed in the CDFW Streambed Alteration Agreement). The survey will include all potential nesting areas, including dam structures. Restrictions may be placed on construction/maintenance activities in the vicinity of any active nest observed until the nest is no longer active. If an active nest is observed during the survey, it would be protected by an appropriate buffer zone designated by CDFW, where no construction activity would be allowed until the nest had failed or the nestlings had fledged. Once the nest is no longer active, construction can proceed within the buffer zone.

Please contact Marc Blain at (626) 351-2000 if you have questions or comments.

Sincerely,

BONTERRA CONSULTING



Thomas E. Smith, Jr., AICP
Principal



Marc T. Blain
Associate, Biological Resources Manager

Enclosures: Exhibit 1 – Regional Location
Exhibit 2 – Local Vicinity
Exhibit 3 – Existing Vegetation
Exhibit 4 – Jurisdictional Resources: USACE
Exhibit 5 – Jurisdictional Resources: CDFW

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EXECUTIVE SUMMARY

This assessment report documents and evaluates the federal, state, and local significance and eligibility of Sunset Canyon Upper Debris Basin, dam, and associated features (collectively referred to as UDB.) The UDB is owned and maintained by the County of Los Angeles Department of Public Works, Alhambra, California.

The historic resource assessment and evaluation of the UDB was conducted by Pamela Daly, M.S.H.P., Senior Architectural Historian. In order to identify and evaluate the subject property as a potential historic resource, a multi-step methodology was utilized. An inspection of the site and existing structures, combined with a review of local and regional historic archives regarding the subject property, was performed to document existing conditions and assist in assessing and evaluating the property for significance.

In evaluating the subject property's historical significance federal, state, and local criteria were applied. The UDB is not currently listed in the National Register, the California Register, or as an Eligible or Designated Historic Resource in the City of Burbank.

Under National Register, California Register, or City of Burbank criteria relating to the UDB's association with significant historical events that exemplifying broad patterns of our history, the UDB does not qualify as a significant resource. Research has revealed that the UDB was constructed by the Los Angeles County Flood Control District to channel seasonal rainfall draining from the Verdugo Mountains into Sunset Canyon. Debris basins and dams were integral tools used by the County Flood Control department to control runoff from the various mountains surrounding Los Angeles County, and were not unique engineering structures. There is no evidence that the UDB is eligible for listing under Criteria A/1/A.

Under National Register, California Register, or City of Burbank criteria relating to the UDB's association with persons of historic importance, the UDB does not qualify as a significant resource. The UDB was designed and constructed under the direction of the Los Angeles County Flood Control District staff engineers. There is no evidence that the structure is eligible for listing under Criteria B/2/B.

Under National Register, California Register, or City of Burbank criteria relating to the distinctive characteristics of a type, period, region, or method of construction, the UDB is not significant as it does not embody any distinctive style, the use of new technology, or an important engineering design. The UDB was constructed by simply creating a basin within the upper reaches of Sunset Canyon, and constructing a poured-concrete, cantilever arch dam between the canyon walls to temporarily hold runoff from seasonal rainfall. The UDB is not eligible for listing under Criteria C/3/C.

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1. Regional Project Location
2. Location of Sunset Canyon Upper Debris Basin.

Photographs

1. Aerial view of the location of Upper Sunset Canyon Debris Basin
2. Aerial view of the Upper Sunset Canyon Debris Basin dam and access road
3. East elevation of the dam from the adjacent service road
4. East (uphill) face of the dam
5. West (downhill) face of the dam
6. View of spillway and gunite clad hills

Appendices

- A. Drawings and plans of the Sunset Canyon Debris Basin and dam.
- B. California Department of Parks and Recreation Inventory Site Forms (DPR forms)

Based upon a survey of the above-ground historic period resources at the UDB performed in October 2011, the UDB has not yielded, nor does it appear to have the potential to yield, information important to the history of the local area, California or the nation pursuant to Criteria D/4/D.

In summation, the UDB is not eligible for listing in the National Register, the California Register, or as an Eligible or Designated Historic Resource in the City of Burbank, as a significant historic resource, as it does not meet any of the criteria necessary for listing in the registries.

I. INTRODUCTION

A. PROJECT DESCRIPTION

Sunset Canyon is located in the City of Burbank, in the west slope of the Verdugo Mountains. (Figure 1) It is accessed by traveling east on Olive Avenue, then continuing onto Country Club Drive and into Sunset Canyon. (Figure 2) The Sunset Canyon Watershed is comprised of three sub-watersheds, Sunset Upper Watershed, Sunset Lower Watershed, and Sunset Canyon Deer Watershed. Country Club Drive not only provides access to 44 residences constructed on the steep walls of the canyon that line the roadway, but also acts as a conduit for runoff during rain events and debris flows.

The UDB is located at the base of the Sunset Upper Watershed, and has a maximum capacity of 15,900 cubic yards of debris that can be held by a concrete dam. The UDB was constructed in 1929-1932, and consists of a man-made earthen debris basin that collects water and runoff, a poured concrete cantilevered-arch dam, a poured concrete spillway, a utility building, concrete walkways, and gunite-clad hillsides. (Photograph 1)

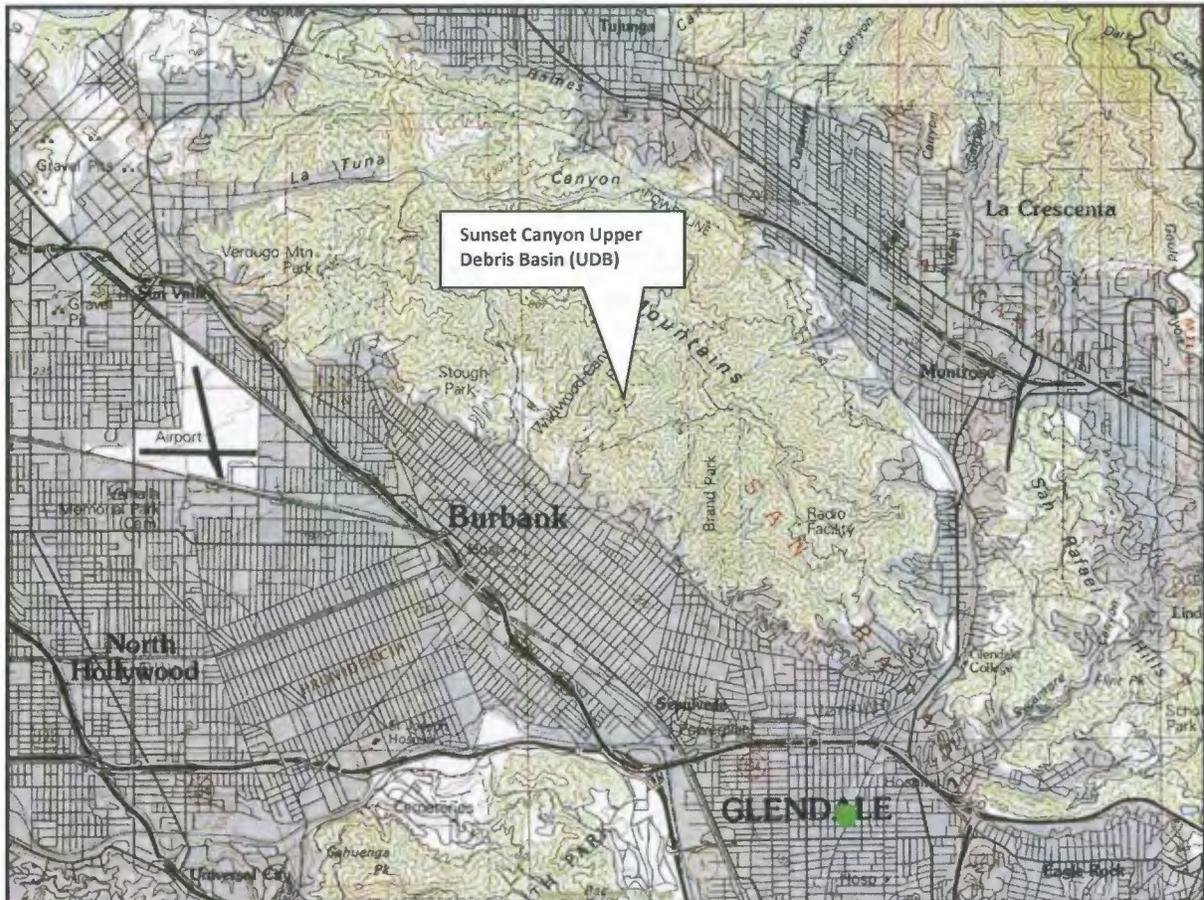
It has been computed that the amount of water and debris generated by a 50-year storm, over already saturated ground recovering from a forest fire, would not be able to completely accommodate the runoff and debris coming out of the watershed, thereby endangering people and property located in the area between the UDB and Sunset Lower Debris Basin. During a major storm event, the excess (floating) debris would flow down Country Club Drive until deposited in Sunset Lower Debris Basin. The UDB dam is owned by the Los Angeles County Flood Control District and maintained by the Los Angeles County Department of Public Works.

Seasonal storm runoff and debris flows are conveyed down Country Club Drive to Sunset Lower Debris Basin. The storm runoff impacts residents and drivers due to the high velocity water and mud flows. There is a 6-inch drainage pipe that runs under the street, but it can only handle the light runoff flow from the natural springs located in the canyon, and nuisance runoff.

To address the potential excess debris flow from the Sunset Upper Watershed, five alternatives were considered: (1) construction of a 5-foot high parapet wall on top of the existing UDB dam wall to increase the basin's sediment storage capacity; (2) removal of the existing UDB dam and replacement with a 58-foot high concrete dam at that location; (3) construction of a 50-foot high structure downstream of UDB dam to control sediment flows exceeding the UDB capacity and sediment from the uncontrolled Upper Sunset Watershed; (4) construction of a rail and timber structure at the base of UDB dam and possibly development of the canyon into a functional sediment placement site, if necessary; and (5) review of existing aerial photographs of the Sunset Upper Canyon watershed, field investigation of the watershed,

and application of erosion and slope stability control techniques and ground cover to reduce the sediment produced by the Sunset Upper Canyon watershed.

The evaluation of the UDB dam has been prepared so that the LACDWP may decide which alternative is most appropriate and present information necessary for any future alterations to the built environment at the site. This report includes a discussion of the survey methodology used, a brief historic context, and formal evaluation of the UDB.



**Figure 1: Regional Project Location
(U.S.G.S. Burbank Quad, 1:100,000)**

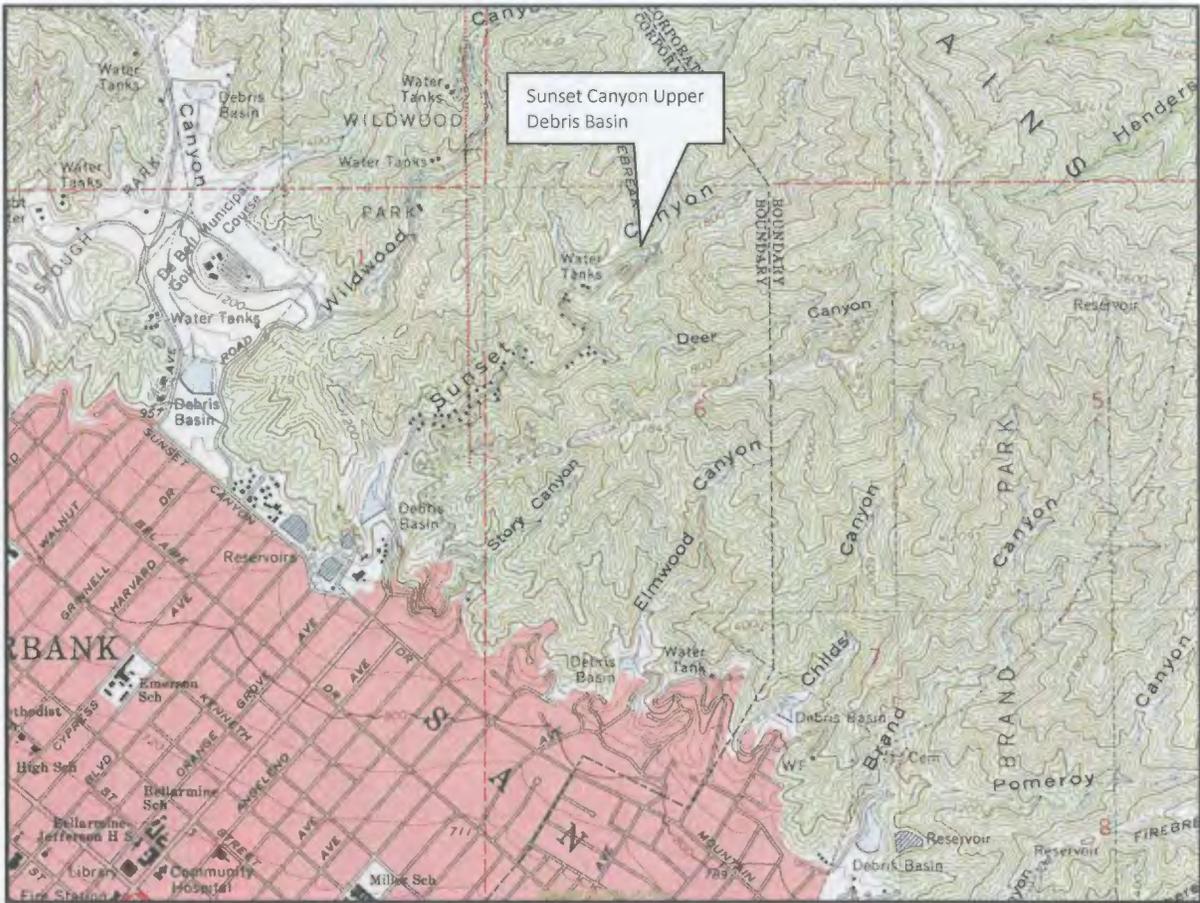


Figure 2: Location of Sunset Canyon Upper Debris Basin.
(U.S.G.S. Burbank Quad, 1:24,000)



**Photograph 1: Aerial view of the location of Upper Sunset Canyon Debris Basin.
(Source: Google Earth, 2011.)**

B. BACKGROUND INFORMATION

The UDB, including associated built-environment resources, has not been formally surveyed either as an independent resource or as an associated feature of the Sunset Canyon Watershed system for eligibility for listing in the National Register of Historic Places, or California Register of Historical Resources.

C. METHODOLOGY

The historic resource assessment and evaluation for this report was conducted by Pamela Daly, M.S.H.P., Senior Architectural Historian. In order to identify and evaluate the subject property as a potential historic resource, a multi-step methodology was utilized. An inspection of the existing structure and associated features, combined with a review of accessible archival sources for this structure, was performed to document existing conditions and assist in assessing and evaluating the property for significance. Photographs were taken of the structure and associated structures and features, including photographs of architectural details or other points of interest, during the pedestrian-level survey.

The National Register of Historic Places (National Register), California Register of Historical Resources (California Register), and City of Burbank's Historic Resources criteria were employed to evaluate the significance of the property. In addition, the following tasks were performed for the study:

- The National Register and the California Historical Resources Inventory were searched.
- Site-specific research was conducted on the Sunset Canyon Upper Debris Basin utilizing maps, city directories, newspaper articles, historical photographs, and other published sources.
- Background research was performed at local historic archives and through internet resources.
- Ordinances, statutes, regulations, bulletins, and technical materials relating to federal, state, and local historic preservation, designation assessment processes, and related programs were reviewed and analyzed.

II. REGULATORY FRAMEWORK

Historic resources fall within the jurisdiction of several levels of government. Federal laws provide the framework for the identification, and in certain instances, protection of historic resources. Additionally, states and local jurisdictions play active roles in the identification, documentation, and protection of such resources within their communities. The National Historic Preservation Act of 1966 as amended (NHPA), and the California Register of Historical Resources (CRHR), are the primary federal and state laws and regulations governing the evaluation and significance of historic resources of national, state, regional, and local importance. A description of these relevant laws and regulations are presented below.

In analyzing the historic significance of the subject property, criteria for designation under federal, and State landmark programs were considered. Additionally, the Office of Historic Preservation (OHP) survey methodology was used to survey and rate the relative significance of the property.

A. FEDERAL LEVEL

1. National Register of Historic Places

First authorized by the Historic Sites Act of 1935, the National Register was established by the NHPA as “an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment.”¹ The National Register recognizes properties that are significant at the national, state and local levels.

To be eligible for listing in the National Register, the quality of significance in American history, architecture, archaeology, engineering, or culture must be in a district, site, building, structure, or object that possesses integrity of location, design, setting, materials, workmanship, feeling and association, and:²

- A. is associated with events that have made a significant contribution to the broad patterns of our history; or
- B. is associated with the lives of persons significant in our past; or

¹ *Code of Federal Regulations (CFR), 36 § 60.2.*

² *Guidelines for Completing National Register Forms, National Register Bulletin 16, U.S. Department of the Interior, National Park Service, September 30, 1986 (“National Register Bulletin 16”). This bulletin contains technical information on comprehensive planning, survey of cultural resources, and registration in the National Register of Historic Places.*

- C. embodies the distinctive characteristics of a type, period, or method of construction or that represents the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. yields, or may be likely to yield, information important to prehistory or history.

A property eligible for listing in the National Register must meet one or more of the four criteria (A-D) defined above. In addition, unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for National Register listing.

In addition to meeting the criteria of significance, a property must have integrity. "Integrity is the ability of a property to convey its significance."³ According to *National Register Bulletin 15*, within the concept of integrity, the National Register criteria recognize seven aspects or qualities that, in various combinations, define integrity. To retain historic integrity a property will always possess several, and usually most, of these seven aspects. The retention of specific aspects of integrity is paramount for a property to convey its significance.⁴ The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association. The following is excerpted from *National Register Bulletin 15*, which provides guidance on the interpretation and application of these factors.

- Location is the place where the historic property was constructed or the place where the historic event occurred.⁵
- Design is the combination of elements that create the form, plan, space, structure, and style of the property.⁶
- Setting is the physical environment of a historic property.⁷
- Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.⁸

³ *National Register Bulletin 15*, page 44.

⁴ *Ibid.*

⁵ "The relationship between the property and its location is often important to understanding why the property was created or why something happened. The actual location of historic property, complemented by its setting is particularly important in recapturing the sense of historic events and persons. Except in rare cases, the relationship between a property and its historic associations is destroyed if the property is moved." *Ibid.*

⁶ "A property's design reflects historic functions and technologies as well as aesthetics. It includes such considerations as the structural system; massing; arrangement of spaces; pattern of fenestration; textures and colors of surface materials; type, amount, and style of ornamental detailing; and arrangement and type of plantings in a designed landscape." *Ibid.*

⁷ *National Register Bulletin 15*, page 45.

⁸ "The choice and combination of materials reveals the preferences of those who created the property and indicated the availability of particular types of materials and technologies. Indigenous materials are often the focus of regional building traditions and thereby help define an area's sense of time and place." *Ibid.*

- Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.⁹
- Feeling is property's expression of the aesthetic or historic sense of a particular period of time.¹⁰
- Association is the direct link between an important historic event or person and a historic property.¹¹

In assessing a property's integrity, the National Register criteria recognize that properties change over time; therefore, it is not necessary for a property to retain all its historic physical features or characteristics. The property must, however, retain the essential physical features that enable it to convey its historic identity.¹²

For properties that are considered significant under National Register criteria A and B, *National Register Bulletin 15* states that a property that is significant for its historic association is eligible if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person(s).¹³

In assessing the integrity of properties that are considered significant under National Register criterion C, *National Register Bulletin 15* provides that a property important for illustrating a particular architectural style or construction technique must retain most of the physical features that constitute that style or technique.¹⁴

The primary effects of listing in the National Register on private property owners of historic buildings is the availability of financial and tax incentives.¹⁵ In addition, for projects that receive federal funding, the Section 106 clearance process must be completed. State and local laws and regulations may apply to properties listed in the National Register. For example,

⁹ "Workmanship can apply to the property as a whole or to its individual components. It can be expressed in vernacular methods of construction and plain finishes or in highly sophisticated configurations and ornamental detailing. It can be based on common traditions or innovative period techniques." *Ibid.*

¹⁰ "It results from the presence of physical features that, taken together, convey the property's historic character." *Ibid.*

¹¹ "A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to the observer. Like feeling, associations require the presence of physical features that convey a property's historic character...Because feeling and association depend on individual perceptions, their retention alone is never sufficient to support eligibility of a property for the National Register." *Ibid.*

¹² *National Register Bulletin 15*, page 46.

¹³ *Ibid.*

¹⁴ "A property that has lost some historic materials or details can be eligible if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, pattern of windows and doors, texture of materials, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of features that once characterized its style." *Ibid.*

¹⁵ See 36 CFR 60.2(b) (c).

demolition or inappropriate alteration of National Register eligible or listed properties may be subject to the California Environmental Quality Act (CEQA).

B. STATE LEVEL

The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also carries out the duties as set forth in the Public Resources Code (PRC) and maintains the California Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the state's jurisdictions.

1. California Register of Historical Resources

Created by Assembly Bill 2881, which was signed into law on September 27, 1992, the CRHR is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change."¹⁶ The criteria for eligibility for the California Register are based upon National Register criteria.¹⁷ Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.¹⁸

The California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register of Historic Places and those formally Determined Eligible for the National Register of Historic Places;
- California Registered Historical Landmarks from No. 770 onward;
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.¹⁹

Other resources which may be nominated to the California Register include:

- Individual historical resources;
- Historical resources contributing to historic districts;

¹⁶ *California Public Resources Code § 5024.1(a).*

¹⁷ *California Public Resources Code § 5024.1(b).*

¹⁸ *California Public Resources Code § 5024.1(d).*

¹⁹ *California Public Resources Code § 5024.1(d).*

- Historical resources identified as significant in historical resources surveys with significance ratings of Category 1 through 5;
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as a historic preservation overlay zone.²⁰

To be eligible for listing in the California Register, a historic resource must be significant at the local, state, or national level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Additionally, a historic resource eligible for listing in the California Register must meet one or more of the criteria of significance described above and retain enough of its historic character or appearance to be recognizable as a historic resource and to convey the reasons for its significance. Historical resources that have been rehabilitated or restored may be evaluated for listing.²¹

Integrity under the California Register is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. The resource must also be judged with reference to the particular criteria under which it is proposed for eligibility. It is possible that a historic resource may not retain sufficient integrity to meet criteria for listing in the National Register, but it may still be eligible for listing in the California Register.²²

2. California Office of Historical Preservation Survey Methodology

The evaluation instructions and classification system prescribed by the California Office of Historic Preservation in its Instructions for Recording Historical Resources provide a three-digit evaluation rating code for use in classifying potential historic resources. The first digit indicates one of the following general evaluation categories for use in conducting cultural resources surveys:

²⁰ *California Public Resources Code § 5024.1(e).*

²¹ *California Code of Regulations, California Register of Historical Resources (Title 14, Chapter 11.5), Section 4852(c).*

²² *Ibid.*

1. Listed on the National Register or the California Register;
2. Determined eligible for listing in the National Register or the California Register;
3. Appears eligible for the National Register or the California Register through survey evaluation;
4. Appears eligible for the National Register or the California Register through other evaluation;
5. Recognized as Historically Significant by Local Government;
6. Not eligible for any Listing or Designation; and
7. Not evaluated for the National Register or California Register or needs re-evaluation.

The second digit of the evaluation status code is a letter code indicating whether the resource is separately eligible (S), eligible as part of a district (D), or both (B). The third digit is a number that is used to further specify significance and refine the relationship of the property to the National Register and/or California Register. Under this evaluation system, categories 1 through 4 pertain to various levels of National Register eligibility. The California Register, however, may include surveyed resources with evaluation rating codes through level 5. In addition, properties found ineligible for listing in the National Register, California Register, or for designation under a local ordinance are given an evaluation status code of 6.

C. LOCAL LEVEL

1. City of Burbank

The City of Burbank has a Historic Resource Management Ordinance.²³ The intent of the ordinance is to recognize, preserve, and protect historic resource in the interest of the health, prosperity, social and cultural enrichment, and general welfare of the residents of the City. The purpose of the ordinance is to:

- a. Safeguard the heritage of the City by preserving resources that reflect elements of the City's history;
- b. Encourage public understanding and involvement in the historic, cultural, architectural, archaeological, and social heritage of the City;
- c. Promote the private and public use and preservation of historic resources for the education, appreciation and general welfare of the people;
- d. Promote the conservation, preservation and enhancement of historic resources;
- e. Promote the conservation of energy and natural resources through the preservation and maintenance of historic resources;
- f. Discourage the demolition, destruction, alteration, misuse or neglect of Designated Historic Resources which represent an important link to Burbank's past;

²³ Article 9: Miscellaneous Uses and Standards; Division 6: Historic Preservation Regulations 10-1-925 and 10-1-926.

- g. Provide economic benefits to owners of qualifying historic resources to ensure their continued maintenance and preservation; and
- h. To make all information about historic resources and historic preservation accessible and available to the public.

Prior to any resource being approved as a Designated Historic Resource, the City Council shall find that the resource satisfies one or more of the following criteria.

- A. The resource is associated with events that have made a significant contribution to the broad patterns of Burbank's or California's history and cultural heritage.
- B. The resource is associated with the lives of persons important in the past.
- C. The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- D. The resource has yielded, or may be likely to yield, information important in prehistory or history.

III. EVALUATION

A. HISTORIC CONTEXT

1. Burbank

Burbank is located on land that belonged to the Rancho San Rafael owned by Jose Maria Verdugo, and Rancho Providencia owned by Vicente de la Ossa. Dr. David Burbank, who had come west from Waterville, Maine, in the early 1850s, became a well-established practitioner in the Pueblo de Los Angeles, making enough money to purchase over 9,000 acres of the old ranchos in the late 1860s. Dr. Burbank used the land for raising sheep and became a very successful landowner. As Dr. Burbank's ranch was located along old transportation routes, his homestead slowly became the center for a new settlement. Victor Beaudry, a prosperous silver miner, had purchased land in the hills above Burbank's ranch as a transportation route across the Verdugo Mountains and for its mining potential.

When the Southern Pacific Railroad constructed their route south from San Francisco, Dr. Burbank showed what an astute businessman he was when he offered the Southern Pacific Railroad a right-of-way through his land for one dollar. The first Southern Pacific Railroad train passed through his settlement in 1874. With the railroad providing access to commercial markets, and as a mode of personal transportation, Dr. Burbank's settlement began to grow. A group of speculators purchased much of Dr. Burbank's land in 1886, and started selling individual land parcels. A rapid increase in population resulting from a fare war between the Southern Pacific Railroad and the Atchison Topeka & Santa Fe Railroad in the 1880s became the impetus for the establishment of the City of Burbank in 1887. Burbank would later be incorporated in 1911, the same year the Pacific Electric established a streetcar line to the community connecting it to all of greater Los Angeles.

With an established means of local transportation to downtown Los Angeles and surrounding communities, manufacturing businesses saw the potential for building large factories in Burbank using local manpower. The Burbank Furniture Manufacturing Company was the town's first factory in 1887. Unfortunately, that company did not last too long. It was in 1917 that the Moreland Motor Truck Company established a manufacturing plant, employing hundreds of workers. In 1920, a branch of the Jergens Company, run by Andrew Jergens Jr., constructed a west coast manufacturing operation of their body lotions. It was followed by the Lockheed Aircraft Company establishing a aircraft manufacturing plant in Burbank.

In 1912, land that had once belonged to the Providencia Rancho became an outdoor filming lot for Universal Pictures. Warner Brothers Pictures took over the operations of the First National Pictures and the land they held in Burbank in 1927. Columbia Pictures also bought a large amount of land to create an outdoor filming area in the 1920s.

2. Sunset Canyon/Country Club Drive

At the east end of Olive Avenue, is a wrought metal archway announcing a driver's entrance to Country Club Drive and Sunset Canyon. The archway was constructed at the beginning of Country Club Drive to herald the road leading to the Sunset Canyon Country Club. Sunset Canyon Country Club was constructed in 1922, up the unpaved road winding through Sunset Canyon into the foothills of the Verdugo Mountains west slope, above the City of Burbank. The Sunset Canyon Country Club was

being built for a group of wealthy Southern Californians in Sunset Canyon in the hills above Glendale. The Sunset Canyon Country Club will embrace such sports as golf, hiking, swimming, and a number of others for the members and is being built on one of the prettiest sites in the country. This ground has been named the 'little Switzerland of America'. Members will leave their city homes during the summer months and use the homes they have built in those hills, practically all of which are being built out of stone taken from the ground they are built on. [The club] is within thirty-five miles of the heart of Los Angeles, and the trip can be easily made in a day over ...Glendale and San Fernando Boulevards.²⁴

Visitors and residents of Burbank started constructing small recreational cabins in the hills lining Sunset Canyon as it rose into the Verdugo Mountains. Over the years the Sunset Canyon Country Club became very popular, and social and sporting events were continually reported in the social pages of the Los Angeles Times.

In early December 1927, a horrific wildfire broke out in the Verdugo Mountain foothills. Fanned by high winds, the fire destroyed more than 90 homes in Sunset Canyon and burned over 7,000 acres of the watershed down to edge of Burbank proper.²⁵ No sooner had the fire been controlled, than the Chief Los Angeles County Flood Control Engineer and his staff made plans for the construction of check dams in Sunset Canyon to control the flow of water, silt, and debris that could come from off the hills in the event of heavy winter rains.²⁶

The Chief Los Angeles County Flood Control Engineer had submitted an exhaustive report to the Los Angeles County Board of Supervisors in September of 1926, detailing the need for 21 projects to supplement flood control projects already in place and underway in the county. These 21 new projects included permanent debris dams and basins to be constructed throughout Los Angeles County to address the substantial danger and cost from seasonal rain fall and the resultant floods. The estimated cost for just the 21 projects was \$21 million

²⁴ Los Angeles Times. *Sunset Country Club Not Ready to Open Links*. May 21, 1922.

²⁵ Los Angeles Times. *Trail of Fire Demon Now Only Blackened Waste*. December 6, 1927.

²⁶ Los Angeles Times. *Fire Conquered On Every Front*. December 7, 1927.

dollars.²⁷ While the Sunset Canyon Upper Debris Basin was not a specific item in the list of projects, the effort to control seasonal flooding was a sophisticated battle being waged by highly skilled engineers across Los Angeles County.

It appears that luck was not to play a part in controlling the aftermath of the effects of the Verdugo Hills Fire of 1927, for before Los Angeles County Flood Control could construct a check dam large enough to hold back large amounts of water and debris coming off of the fire ravaged hillsides, Southern California and Burbank were hit with a rainstorm that in twenty minutes dropped over two inches of rain in November of 1928.²⁸

Residents in [Sunset Canyon] for a time were imperiled but none attempted flight as greater safety was offered in their home along the canyon sides. The roadway in the canyon bed was a raging torrent churned to a frenzied froth by huge boulders, trunks of trees and other debris. So powerful was the rush of water, that it swept into Olive Avenue, principal residential street in the hillside district and leading into the business area of Burbank, and the street became a raging river.

*The water rushed into near-by homes, flooding in some cases to the window casements. At one residence at the mouth of the canyon, the family was held imprisoned by the flood and was seriously threatened when a telephone pole was plunged through a window, opening a way for mud and water to pour into the house. Many automobiles in Sunset Canyon were washed from garages and several such structures fell. Boulders the size of a large automobile were hurled through the canyon and littered the road after the waters had swept through.*²⁹

It was estimated that the flood that poured out of Sunset Canyon was 60% mud and 40% water. Forty thousand cubic yards of debris were deposited in the streets and yards of Burbank.³⁰ So, in an attempt to avoid a catastrophic event like that of the winter of 1928, a cantilever-arch dam and debris basin were constructed in the upper reaches of Sunset Canyon to control the effects of the seasonal rainfalls. Flood control debris basins and dams play an important part in providing a level of protection to the downstream residents and business against potentially devastating flood and debris flows throughout Los Angeles County.

²⁷ Los Angeles Times. *Flood Control Projects Cited*. September 25, 1926.

²⁸ Los Angeles Times. *Heavy Storm Nears End*. November 15, 1928.

²⁹ Los Angeles Times. *Roaring Flood Hits Burbank*. November 15, 1928.

³⁰ Los Angeles Times. *Fighting the Red Demon of the Hills*. May 29, 1932.

B. HISTORIC RESOURCES IDENTIFIED

A site visit and pedestrian-level inspection of the UDB was performed on October 26, 2011. The UDB consists of an earthen basin formed from a natural drainage of the Verdugo Mountains on the Victor Beaudry land tract. (Photograph 2) The earthen basin is located between steeply rising hillsides that form the walls of the basin. The base of the debris basin is at 1560 feet above sea level with the surrounding hills rising sharply to 1800 feet. A cantilever arch dam spans between the hillsides with its convex side facing the crest of the Verdugo Mountains, to the northeast. (Photograph 3 and 4)

On the north side of the dam, on the hillside just above it, is a small gable roof building used as a utility shed. Historic aerial photographs show that the utility shed dates from before 1952. There are concrete steps that lead down the hillside from the utility shed to the paved spillway below the dam on the canyon floor. On the convex side (downhill side) of the dam is a spillway also constructed of cast and poured concrete situated to control the water coming over the dam. (Photograph 5) The hills on the downhill side of the dam have been clad with gunite (sprayed concrete) to create a sealed channel for large amounts of water and debris. (Photograph 6) The spillway continues down the hill to where it intersects with the UDB access road, and the roadway then becomes the spillway all the way down the canyon until it reaches Sunset Canyon Lower Debris Basin.

The dam is 45 feet tall at the crest and 160 feet wide. The dam wall was constructed between 1929 and 1932, of cast-in-place poured concrete.³¹ There are parapet walkways that add an additional 4 feet in height to the walls on each side of the dam lip. The parapet walkways extend from each end of the dam wall for approximately 40 feet, leaving a gap of approximately 80 feet between the parapets to funnel water and light debris over the ogee lip of the top of the dam. While the dam is curved to the east, it is also angled 24 degrees to the west. This allows water and floating debris to easily slip over the top of the dam, while holding back heavier silt, rocks and even boulders that may flow down from the watershed above the debris basin. This is especially true after a forest fire when there is no foliage to hold back the terrain in heavy rainfall.

In the original plans, the dam wall had been pierced at 15 feet above the basin floor, and at 25 feet above the basin floor, by 24-inch diameter steel pipes. These openings were installed to allow water to escape as it reaches those heights, keeping larger debris inside the basin. It appears that at some point in time the pipe at the higher point in the dam wall was sealed with concrete. The debris that collects on the uphill side of the dam is excavated by heavy machinery, and hauled out of the canyon at the end of each year's rainy season.

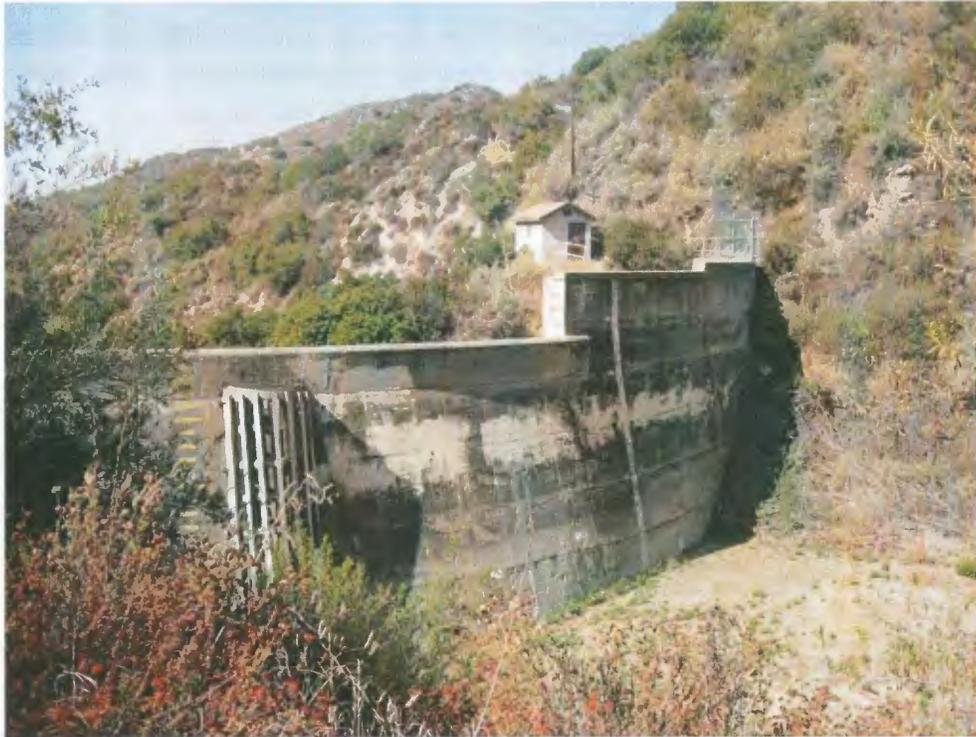
³¹ *Dates of construction are based upon the original "Plan & Details of the Dam" that show the plans were approved in 1929 and revised in 1932 "to agree with the Dam as constructed." See copy of drawings in Appendix A.*

The access road that circumvents the dam along the south hillside was constructed in 1961. Other than routine maintenance and repairs, the debris basin, dam, and associated features have been relatively unchanged since the UDB was constructed.

The water tanks, steel water supply pipes, and fire hydrants situated within the boundary fence of the UDB are owned, and under the control of the City of Burbank, and are not part of this study.



Photograph 2: Aerial view of the Upper Sunset Canyon Debris Basin dam and access road. Looking north. (Source: Google aerial, 2011.)



Photograph 3: East elevation of the dam from the adjacent service road. The utility shed is visible on the hillside to the north of the dam. View looking west.



Photograph 4: East (uphill) face of the dam. View looking southwest.



Photograph 5: West (downhill) face of the dam. View looking north.



Photograph 6: View of spillway and gunite clad hills, looking northeast.

C. SIGNIFICANCE

An article in the Los Angeles Times, cited earlier in this report, presented 21 projects that the Los Angeles County Flood Control Chief Engineer deemed necessary for the protection and safety of the residents of Los Angeles County in 1926. Of the projects described in the article, eight were debris basins, and five were debris basin dams or a combination of both basin and dam. As Los Angeles County became more populated, it was necessary to devise a system of funneling the seasonal flow of water coming off of the mountains and foothills, and controlling their flow into channels or permanent reservoirs. The article from 1926 is an example of just a few of the projects, and types of control systems, that were being planned by the Los Angeles County Flood Control District to protect its residents.

The UDB was constructed in 1929 by the Los Angeles County Flood Control District. The debris basin and dam were constructed to control the run-off from seasonal rainfall from the Verdugo Mountain hillsides. The height of the dam and depth of the basin were based upon calculations as to what was required to protect the residents and property below the dam in the event of heavy seasonal rainfall following the destruction of the watershed vegetation from a fire in the Verdugo Mountain.

The UDB in Sunset Canyon is just one of many debris basin and dams located across the Verdugo Mountains, San Gabriel Mountains, and Santa Monica Mountains. Although the UDB dam is a bit more sophisticated than some of the earthen dams, or wood timber and stone check dams, located in Los Angeles County, it is not to be considered an example of important dam engineering or a significant concrete structure. Many large concrete masonry dams (constructed primarily to create reservoirs) had been built in California before the UDB dam. Some of these include the Sweetwater Dam in San Diego County, built in 1888; Don Pedro Dam in Tuolumne County, built in 1923; Big Bear Dam, built in 1912; and Lake Arrowhead Dam, built in 1922. Seven of the concrete bridges that still span the Los Angeles River in downtown Los Angeles were constructed before 1928, and the Los Angeles Aqueduct/Owens River Project had been completed in 1913.

In assessing the historical significance of the UDB, federal, state and local significance criteria were applied. The subject property is not currently listed in either the National Register or the California Register, or as a City of Burbank Designated or Eligible Historic Resource.

Under National Register, California Register, or City of Burbank criteria relating to the UDB's association with significant historical events that exemplifying broad patterns of our history, the debris basin and associated features do not appear to qualify as a significant historic resource. Throughout the world, debris basins and dams (masonry, earthen or timber) have been constructed by both private and public entities to control seasonal rain fall, to protect people and property. The UDB is just one of many debris basins that were constructed in Los Angeles County's foothill canyons. There is no evidence that the UDB is eligible for listing under Criteria A/1/A.

Under National Register, California Register, or City of Burbank criteria relating to the UDB's association with persons of historic importance, the debris basin and associated features do not appear to qualify as a significant resource. The plans for the debris basin and dam were prepared by Los Angeles County Flood Control District staff engineers as part of their normal tasks and duties. There is no evidence that the UDB is eligible for listing under Criteria B/2/B.

Under National Register, California Register, or City of Burbank criteria relating to the distinctive characteristics of a type, period, region, or method of construction, the UDB is not significant as it does not embody any innovative engineering design or method of construction, or high artistic design. The debris basin was constructed by excavating a drainage conduit in the Verdugo Mountains, and a dam was constructed to hold heavier debris from spilling over during high rainfall events. The technology used to create the basin and dam were commonplace, as was the use of concrete to hold, channel, divert, and control the water as it came down the foothills. The UDB does not present any technological achievement in the history of water systems locally, regionally or nationally, and is therefore not eligible for listing under Criteria C/3/C.

Based upon a survey of the above-ground historic period resources at the UDB performed in October 2011, the UDB has not yielded, nor does it appear to have the potential to yield, information important to the history of the local area, California or the nation pursuant to Criteria D/4/D.

In summation, the UDB is not eligible for listing in the National Register, the California Register, or as a significant historic resource in the City of Burbank, as it does not meet any of the criteria necessary for listing in the registries.

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Appendix A.

Sunset Canyon Upper Debris Basin – Construction Drawings 1932, 1961

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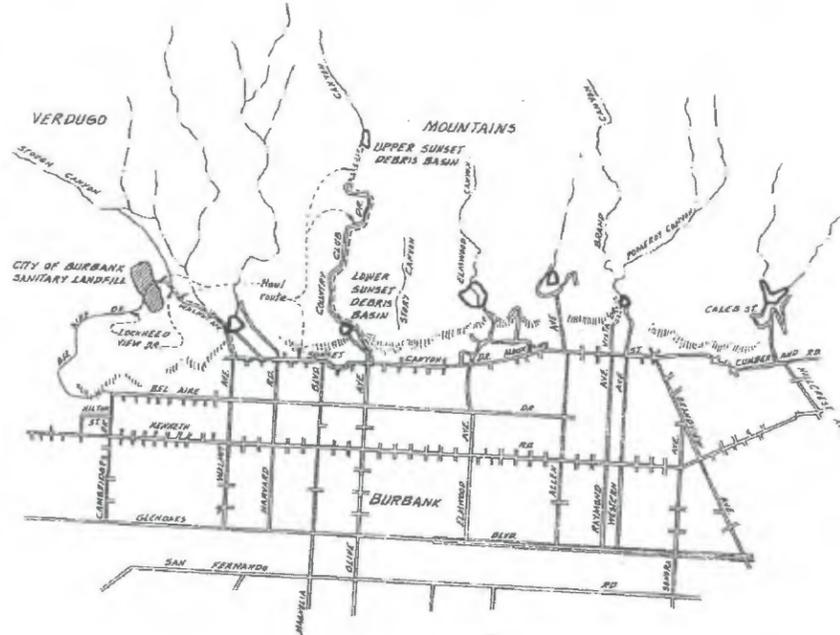
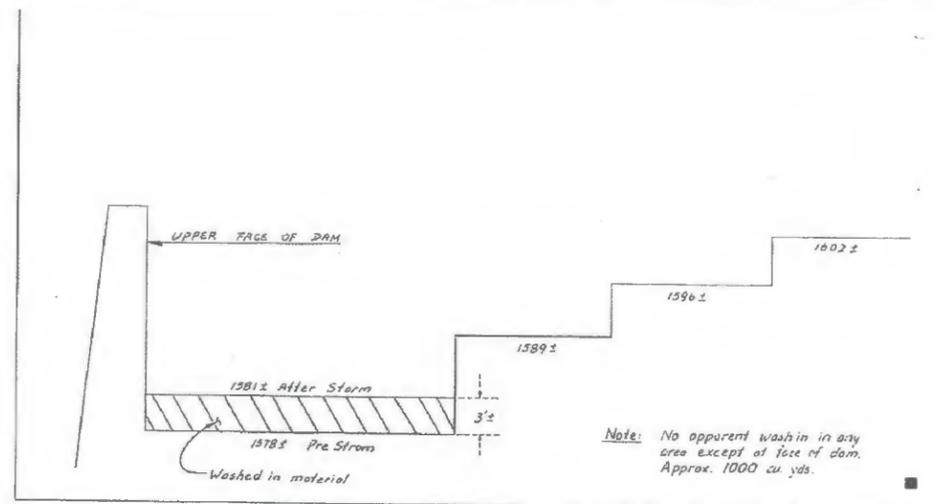
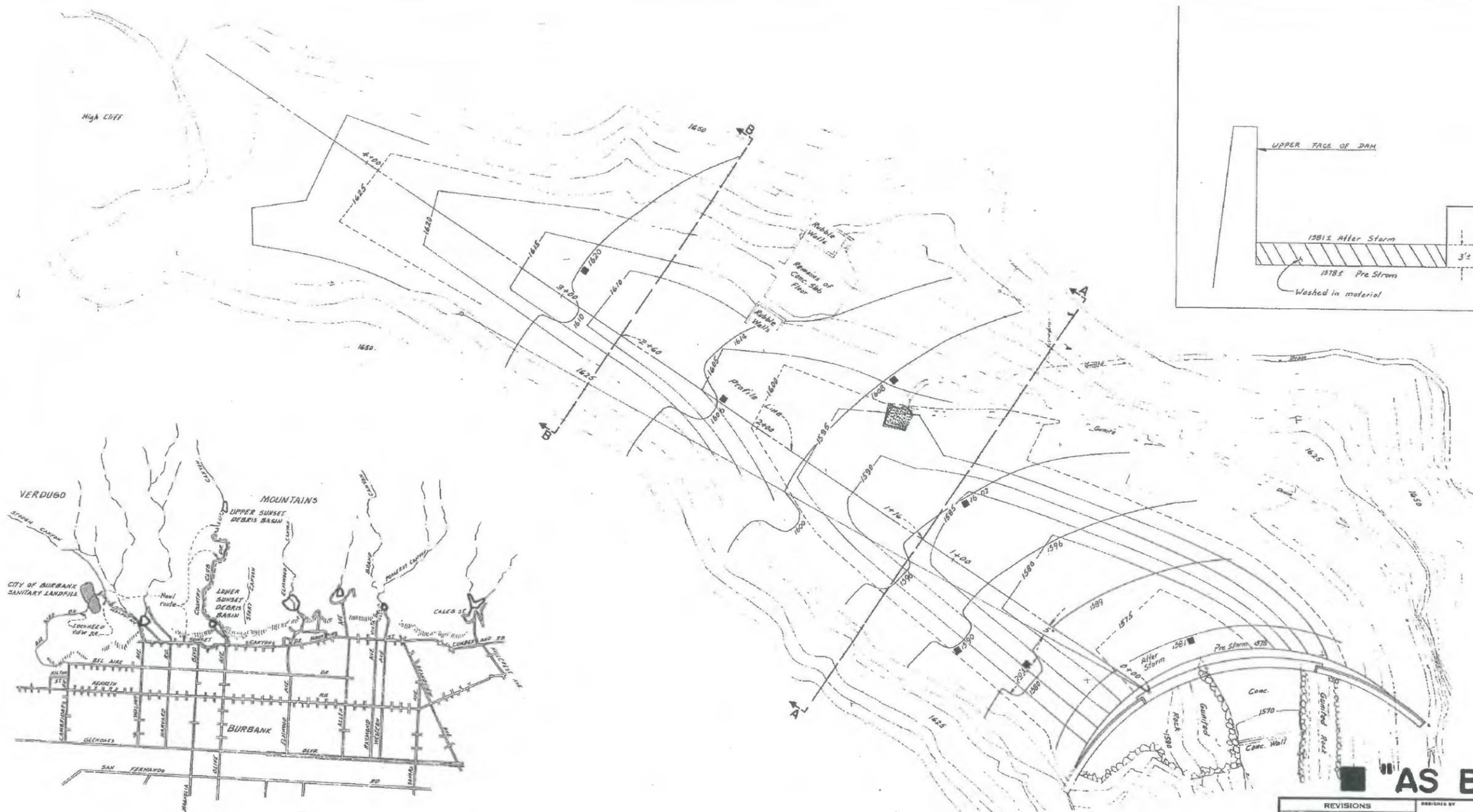
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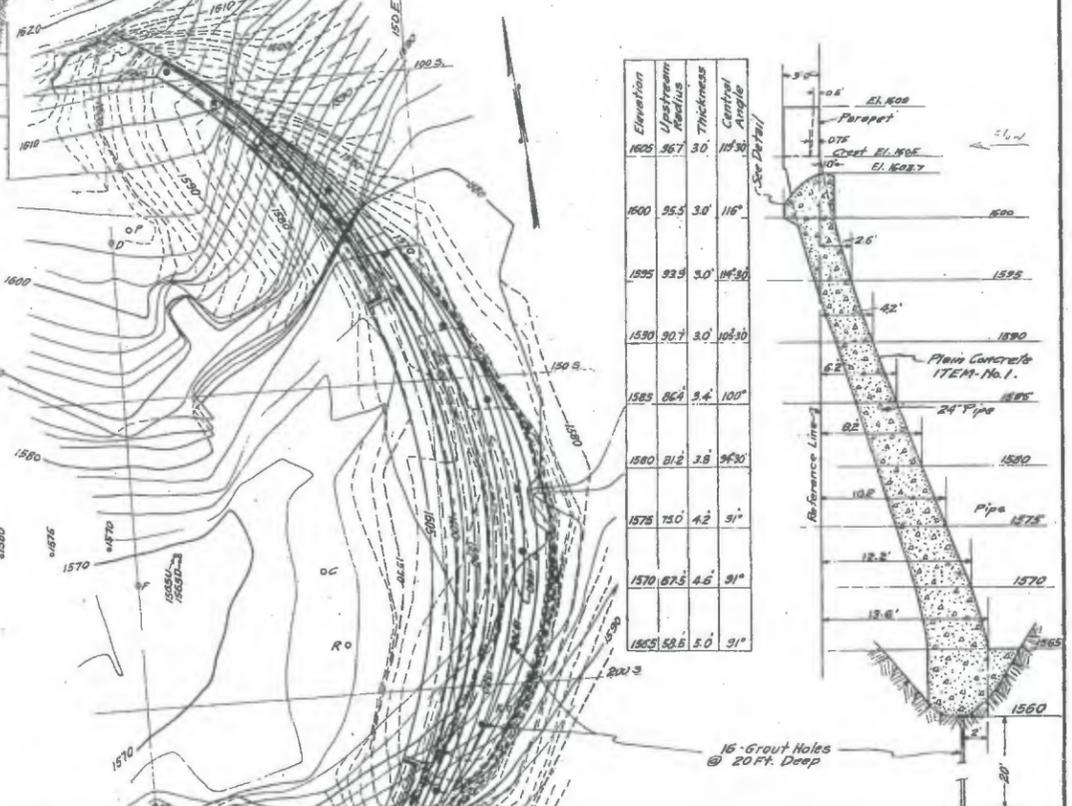
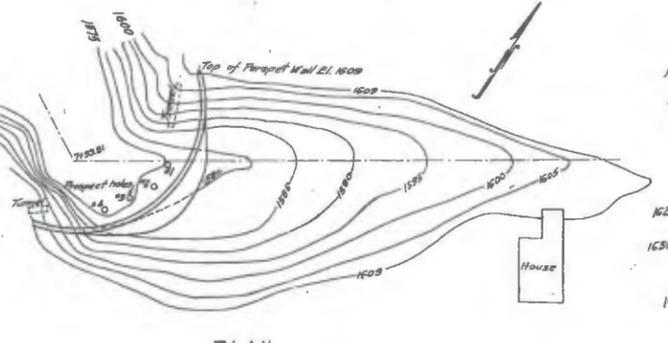
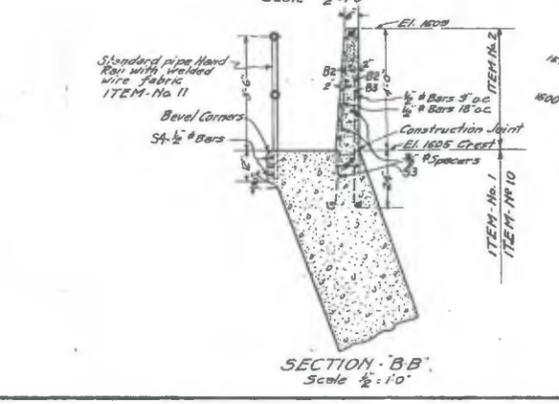
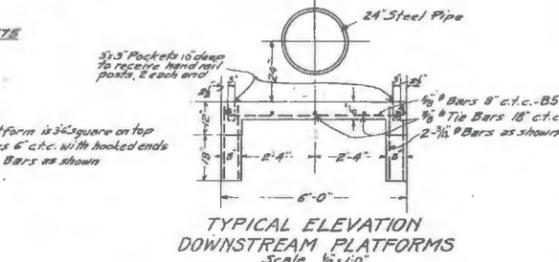
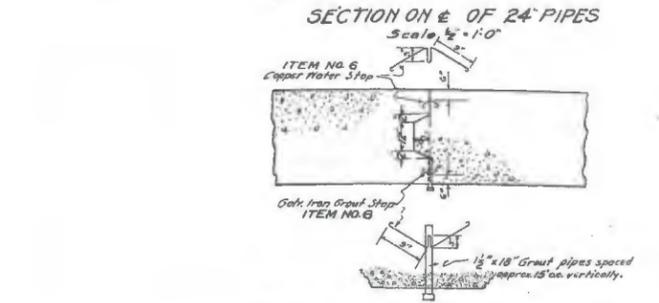
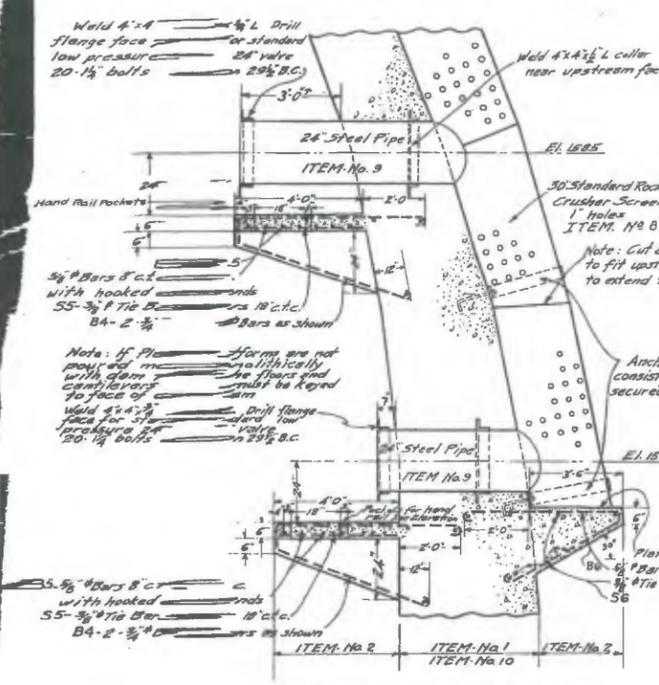
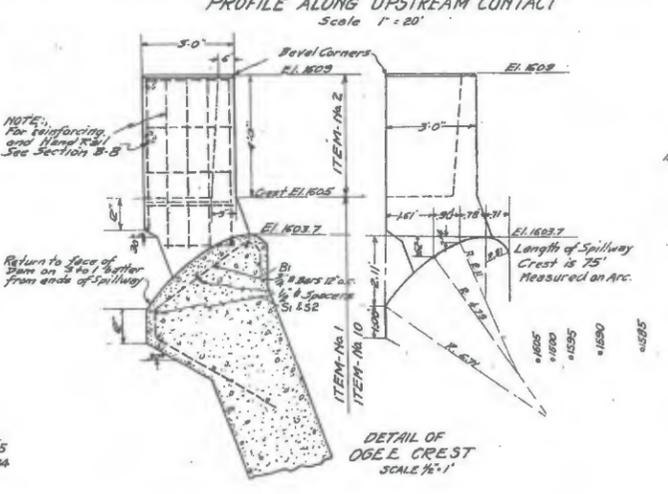
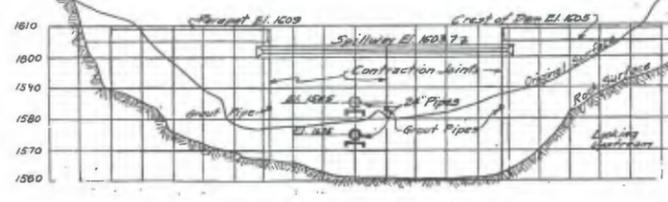
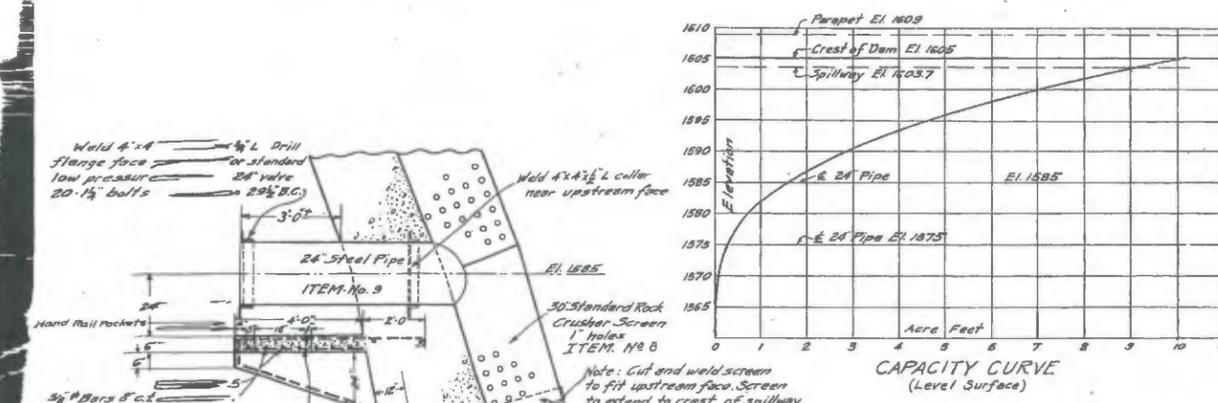


DEBRIS DISPOSAL SITE
NOT TO SCALE

PLAN
SCALE: 1" = 20'

"AS BUILT DRAWINGS"

REVISIONS			DESIGNED BY	LOS ANGELES COUNTY FLOOD CONTROL DISTRICT	
MK	DATE	DESCRIPTION		SUNSET UPPER DEBRIS BASIN DEBRIS REMOVAL AND DISPOSAL	
1	1-29-92	"As Built"		GENERAL PLAN AND DEBRIS DISPOSAL SITE	
			CHECKED BY	RECOMMENDED BY	
			DRAWN BY	DATE 2-22-78 SCALE: 1" = 20'	
			PROJECT ENGINEER	NO. 66A-D23.1	
			DWGS. APPROVED BY	SHEET 1 OF 2	



Elevation	Upstream Radius	Thickness	Central Angle
1605	56.7	3.0	119°30'
1600	55.5	3.0	116°
1595	53.5	3.0	114°30'
1590	50.7	3.0	112°30'
1585	46.4	3.4	100°
1580	31.2	3.8	94°30'
1575	75.0	4.2	91°
1570	67.5	4.6	91°
1605	58.5	5.0	91°

REFERENCES	REVISIONS	LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
	9-17-24 Maximum Section Profile Changed. Added reinforcing bar marks. Changed Arch centers 1570 and 1575. Raised to agree with Dam as Constructed.	SUNSET CANYON DEBRIS BASIN PLAN & DETAILS OF DAM APPROVED BY: [Signature] DATE: AUG. 29 NO. 66A-D8 SHEET OF
	6-9-32	
Approved [Signature] Consulting Engineer Approved [Signature] Consulting Engineer Approved [Signature] State Engineer		APPLICATION No. 32-14 APPROVED AS TO SAFETY DEC. 16, 1932

Appendix B.

Sunset Canyon Upper Debris Basin DPR Site Forms

P1. Other Identifier:

*P2. Location: Not for Publication Unrestricted

*a. County: Los Angeles

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Burbank Date: 1966/1994 T 1 N; R 13 W;

NE ¼ of NW¼ of Sec 6 ; S.B. B.M.

c. Address: 1500 Country Club Drive

City: Burbank

Zip:

d. UTM: Zone: 11; 0381550mE/ 3785580mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 1555 feet

The Sunset Canyon Upper Debris Basin is located at the top of Country Club Drive. The property is bound by a chain-link fence.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

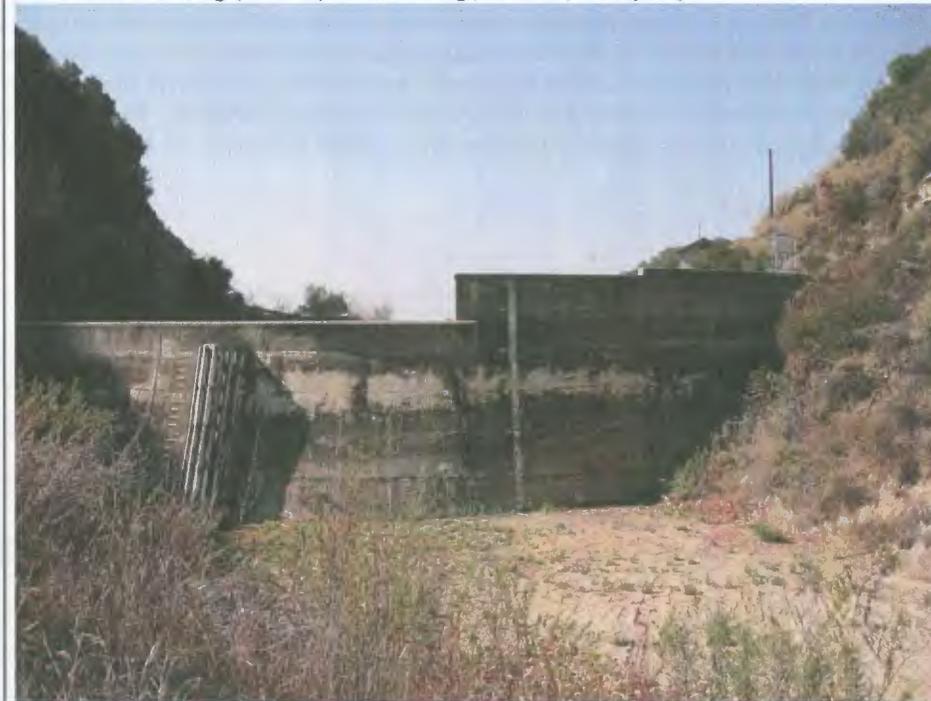
The Sunset Canyon Upper Debris Basin consists of an earthen basin formed from a natural drainage of the Verdugo Mountains on the Victor Beaudry land tract. The earthen basin is located between steeply rising hillsides that form the walls of the basin. The base of the debris basin is at 1560 feet above sea level with the surrounding hills rising sharply to 1800 feet. A cantilever arch dam spans between the hillsides with its convex side facing the crest of the Verdugo Mountains, to the northeast.

On the north side of the dam, on the hillside just above it, is a small gable roof building used as a utility shed. Historic aerial photographs show that the utility shed dates from before 1952. There are concrete steps that lead down the hillside from the utility shed to the paved spillway below the dam on the canyon floor. On the convex side (downhill side) of the dam is a spillway also constructed of cast and poured concrete situated to control the water coming over the dam. (See Continuation Sheet for additional text.)

*P3b. Resource Attributes: (List attributes and codes) HP-39 (Other: Debris basin and associated features); HP-21 (Dam)

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) View looking west, October 26, 2011.

*P6. Date Constructed/Age and

Sources: Historic

Prehistoric Both

1929; County of Los Angeles

Department of Public Works.

*P7. Owner and Address:

Los Angeles County Flood Control District

*P8. Recorded by:

Pamela Daly, M.S.H.P.

Daly & Associates

4486 University Avenue

Riverside, CA 92501

*P9. Date Recorded: November 13,

2011.

*P10. Survey Type: (Describe)

Intensive (CEQA)

*P11. Report Citation: Daly, Pamela. *Historic Resource Evaluation Report of Sunset Canyon Upper Debris Basin*. November, 2011.

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 5

*NRHP Status Code : 6Z

*Resource Name or #: Sunset Canyon Upper Debris Basin

- B1. Historic Name: Sunset Canyon Debris Basin
B2. Common Name: Upper Sunset Canyon Debris Basin
B3. Original Use: Debris basin, dam, and spillway
B4. Present Use: Debris basin, dam, and spillway

*B5. Architectural Style: N/A

*B6. Construction History: (Construction date, alterations, and date of alterations)

*B7. Moved? No Yes Unknown Date: Original Location:

*B8. Related Features: None

B9a. Architect: Los Angeles County Flood Control District

b. Builder: Unknown

*B10. Significance: Theme: Flood Control

Area: Los Angeles County

Period of Significance: NA

Property Type: Debris basin

Applicable Criteria: NR/CR

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The UDB in Sunset Canyon is just one of many debris basin and dams located across the Verdugo Mountains, San Gabriel Mountains, and Santa Monica Mountains. Although the UDB dam is a bit more sophisticated than some of the earthen dams, or wood timber and stone check dams, located in Los Angeles County, it is not to be considered an example of important dam engineering or a significant concrete structure. Many large concrete masonry dams (constructed primarily to create reservoirs) had been built in California before the UDB dam. Some of these include the Sweetwater Dam in San Diego County, built in 1888; Don Pedro Dam in Tuolumne County, built in 1923; Big Bear Dam, built in 1912; and Lake Arrowhead Dam, built in 1922. Seven of the concrete bridges that still span the Los Angeles River in downtown Los Angeles were constructed before 1928, and the Los Angeles Aqueduct/Owens River Project had been completed in 1913.

In assessing the historical significance of the UDB, federal, state and local significance criteria were applied. The subject property is not currently listed in either the National Register or the California Register, or as a City of Burbank Designated or Eligible Historic Resource.

Under National Register, California Register, or City of Burbank criteria relating to the UDB's association with significant historical events that exemplifying broad patterns of our history, the debris basin and associated features do not appear to qualify as a significant historic resource. Throughout the world, debris basins and dams (masonry, earthen or timber) have been constructed by both private and public entities to control seasonal rain fall, to protect people and property. The UDB is just one of many debris basins that were constructed in Los Angeles County's foothill canyons. There is no evidence that the UDB is eligible for listing under Criteria A/1/A.

(See continuation sheet for additional text.)

B11. Additional Resource Attributes: (List attributes and codes) None.

*B12. References:

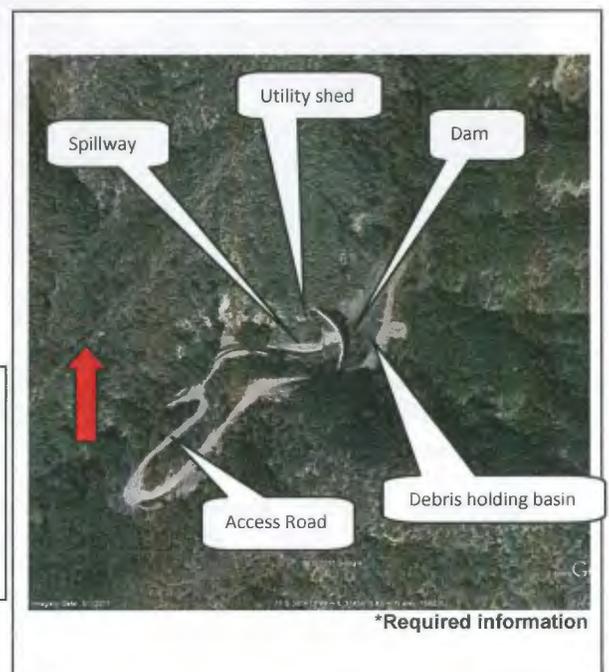
Original drawings from the Los Angeles County Flood Control District, 1932.

B13. Remarks:

*B14. Evaluator: Pamela Daly, M.S.H.P.

*Date of Evaluation: November 13, 2011.

(This space reserved for official comments.)



CONTINUATION SHEET

*Recorded by: Pamela Daly, M.S.H.P. *Date: November 13, 2011 Continuation Update

P3a.: Description:

The hills on the downhill side of the dam have been clad with gunite (sprayed concrete) to create a sealed channel for large amounts of water and debris. The spillway continues down the hill to where it intersects with the UDB access road, and the roadway then becomes the spillway all the way down the canyon until it reaches Sunset Canyon Lower Debris Basin.

The dam is 45 feet tall at the crest and 160 feet wide. The dam wall was constructed between 1929 and 1932, of cast-in-place poured concrete. There are parapet walkways that add an additional 4 feet in height to the walls on each side of the dam lip. The parapet walkways extend from each end of the dam wall for approximately 40 feet, leaving a gap of approximately 80 feet between the parapets to funnel water and light debris over the ogee lip of the top of the dam. While the dam is curved to the east, it is also angled 24 degrees to the west. This allows water and floating debris to easily slip over the top of the dam, while holding back heavier silt, rocks and even boulders that may flow down from the watershed above the debris basin. This is especially true after a forest fire when there is no foliage to hold back the terrain in heavy rainfall.

In the original plans, the dam wall had been pierced at 15 feet above the basin floor, and at 25 feet above the basin floor, by 24-inch diameter steel pipes. These openings were installed to allow water to escape as it reaches those heights, keeping larger debris inside the basin. It appears that at some point in time the pipe at the higher point in the dam wall was sealed with concrete. The debris that collects on the uphill side of the dam is excavated by heavy machinery, and hauled out of the canyon at the end of each year's rainy season.

The access road that circumvents the dam along the south hillside was constructed in 1961. Other than routine maintenance and repairs, the debris basin, dam, and associated features have been relatively unchanged since the UDB was constructed.

The water tanks, steel water supply pipes, and fire hydrants situated within the boundary fence of the UDB are owned, and under the control of the City of Burbank, and are not part of this study.

B.10: Significance:

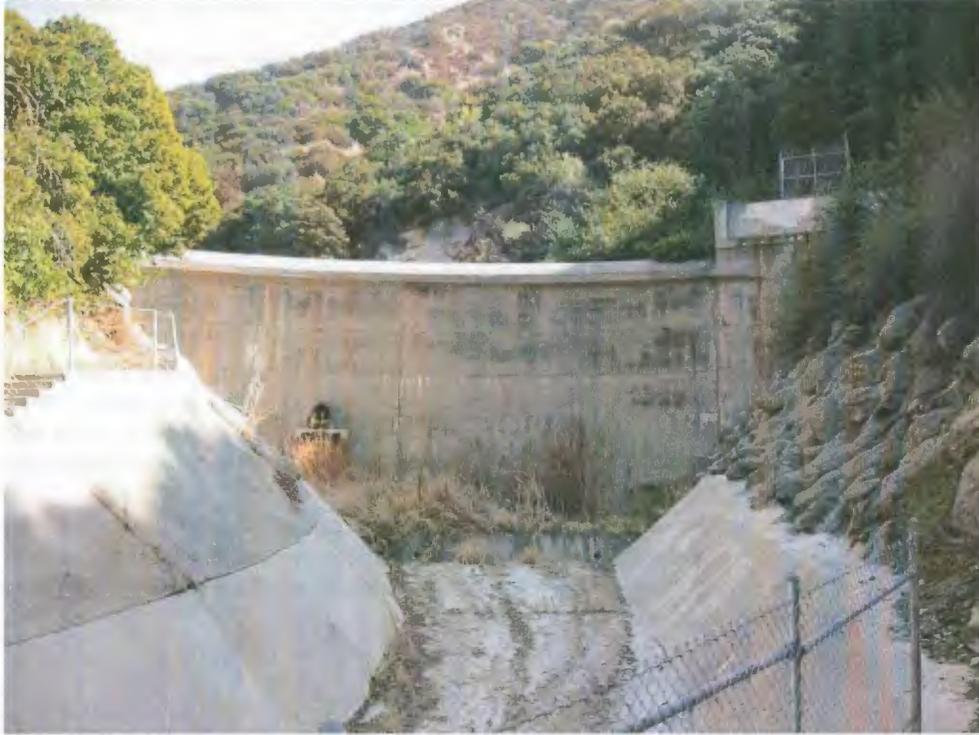
Under National Register, California Register, or City of Burbank criteria relating to the UDB's association with persons of historic importance, the debris basin and associated features do not appear to qualify as a significant resource. The plans for the debris basin and dam were prepared by Los Angeles County Flood Control District staff engineers as part of their normal tasks and duties. There is no evidence that the UDB is eligible for listing under Criteria B/2/B.

Under National Register, California Register, or City of Burbank criteria relating to the distinctive characteristics of a type, period, region, or method of construction, the UDB is not significant as it does not embody any innovative engineering design or method of construction, or high artistic design. The debris basin was constructed by excavating a drainage conduit in the Verdugo Mountains, and a dam was constructed to hold heavier debris from spilling over during high rainfall events. The technology used to create the basin and dam were commonplace, as was the use of concrete to hold, channel, divert, and control the water as it came down the foothills. The UDB does not present any technological achievement in the history of water systems locally, regionally or nationally, and is therefore not eligible for listing under Criteria C/3/C.

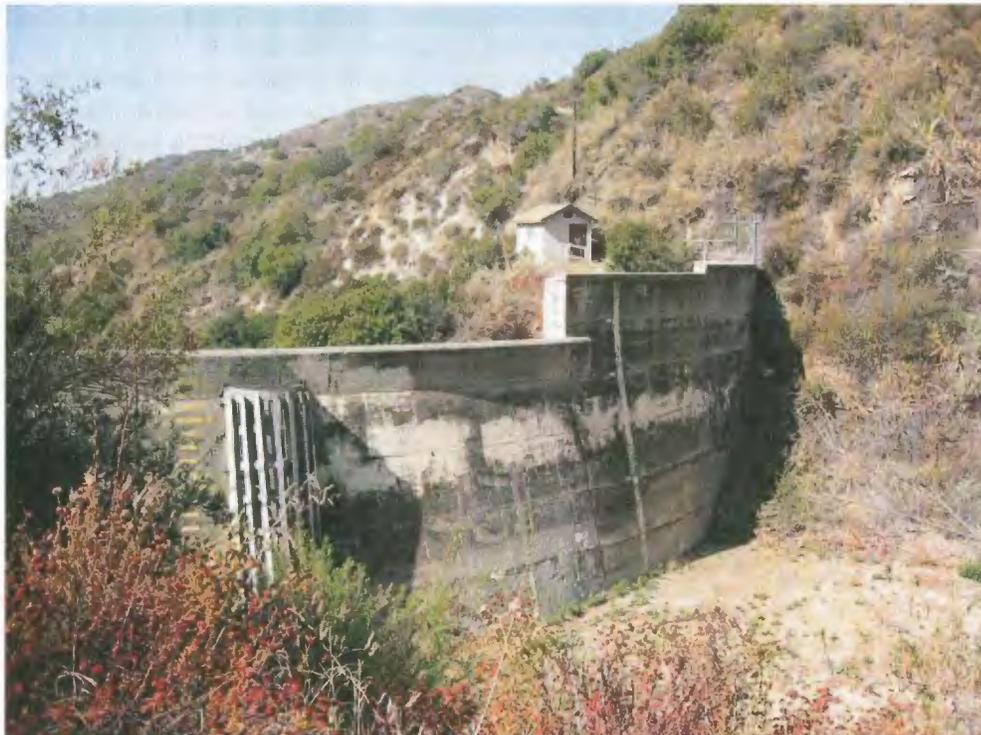
Based upon a survey of the above-ground historic period resources at the UDB performed in October 2011, the UDB has not yielded, nor does it appear to have the potential to yield, information important to the history of the local area, California or the nation pursuant to Criteria D/4/D.

In summation, the UDB is not eligible for listing in the National Register, the California Register, or as a significant historic resource in the City of Burbank, as it does not meet any of the criteria necessary for listing in the registries.

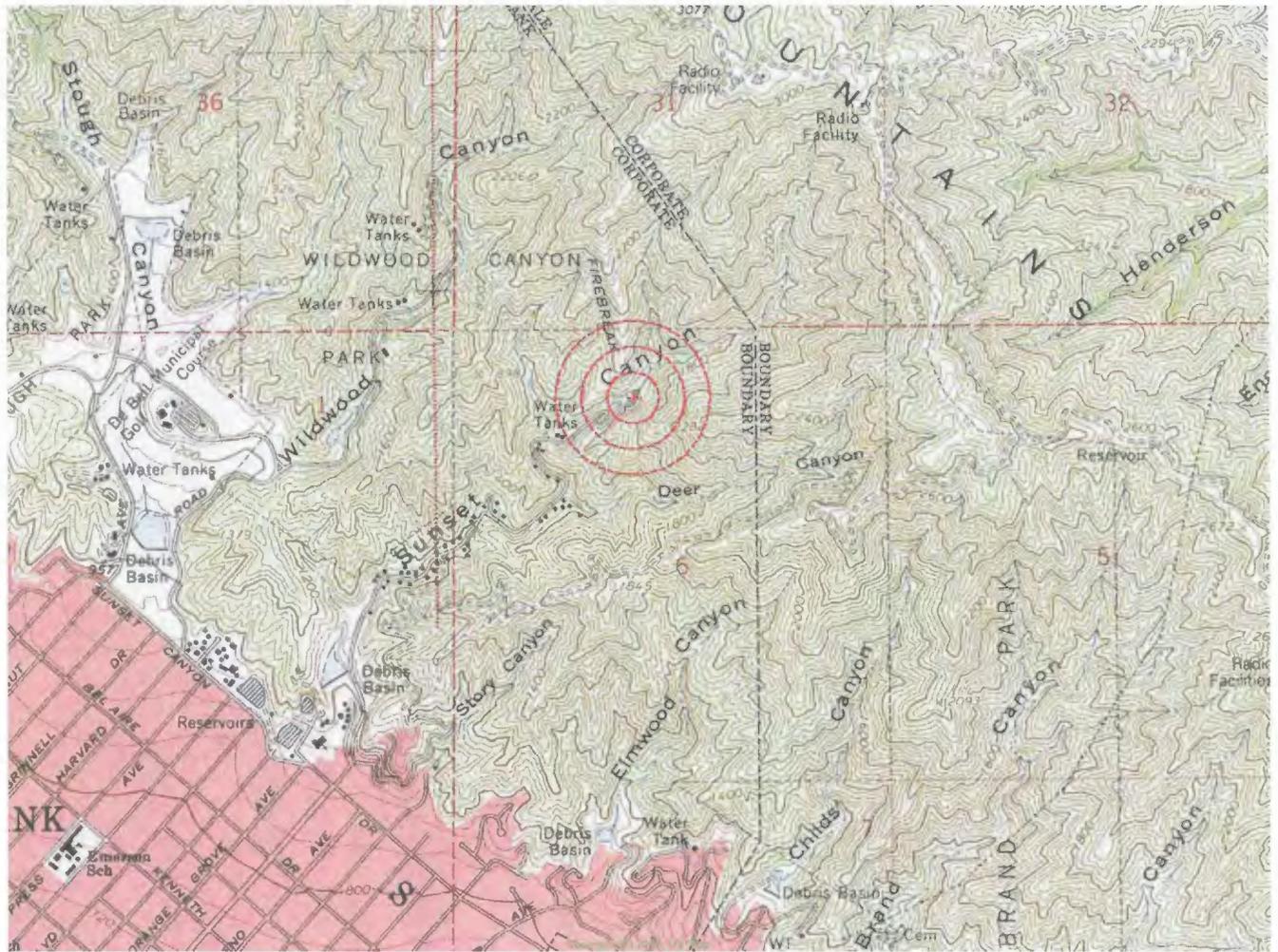
*Recorded by: Pamela Daly, M.S.H.P. *Date: November 13, 2011 Continuation Update



West face (downhill side) of the cantilever arch dam. View looking east.



Sunset Canyon Upper Debris Basin dam: east elevation— looking northwest.
Utility shed for the dam is on the north slope.



DPR 523J (1/95)

*Required Information

Submit

Authorization ID: LAR9048
 Contact ID: BON TERRA
 Expiration Date: 12/10/2013

FS-2700-32 (10/09)
 OMB No. 0596-0082

**U.S. DEPARTMENT OF AGRICULTURE
 FOREST SERVICE**

PERMIT FOR ARCHAEOLOGICAL INVESTIGATIONS

Authority:
 The Antiquities Act of 1906, 16 U.S.C. 431-433
 The Organic Act of 1897, 16 U.S.C. 551

1. Holder BON TERRA CONSULTING	2. Date of corresponding application 11/14/2012
3. Address 2 Executive Circle, Suite 175 Irvine, CA 92614	4. Telephone numbers 714-444-9199 949-677-2393 (cell#) 5. Email addresses pmaxon@bonterraconsulting.com
6. Name of authorized officer Michael J. McIntyre, District Ranger Telephone numbers 626-574-1613 x275 (Darrel Vance) Email addresses Dvance@fs.fed.us	7. Name of principal investigators Patrick Maxon Telephone numbers 949-677-2393 Email addresses pmaxon@bonterraconsulting.com
8. Name of field directors authorized to carry out field projects Pamela Daly Patrick Maxon Albert Knight Dave Smith	Telephone numbers Maxon:714-444-9199 Knight:818-426-4730 Smith:949-922-9952 Daly:909-649-5149 Email addresses pmaxon@bonterraconsulting.com ahunknight@msn.com ehcaddis@sbcglobal.net daly.rvr@de@sbcglobal.net
9. Activities authorized <ul style="list-style-type: none"> • Consulting: Project-specific • Non-ground-disturbing activities (such as surveys) 	
10. Description of National Forest System lands authorized for use (hereinafter referred to as "the permit area") 83 acres along the Santa Anita Wash by existing facilities (Santa Anita Dam, Santa Anita Debris Basin, Santa Anita Head works) operated and maintained by the Los Angeles County Flood Control District. See attached map	
11. Permit term From December 26, 2012 To December 10, 2013	
12. Name and address of the curatorial facility in which collections, records, data, photographs, and other documents resulting from activities conducted under this permit shall be deposited for permanent preservation	

on behalf of the United States Government.

Angeles National Forest Attn: Darrel Vance 701 N. Santa Anita Ave. Arcadia, CA 91006

TERMS AND CONDITIONS

I. GENERAL TERMS

A. AUTHORITY. This permit is issued pursuant to The Organic Act of 1897, 16 U.S.C. 551 , 36 CFR Part 251, Subpart B, 36 CFR Part 296, the Uniform Rules and Regulations of the Antiquities Act of 1906, 43 CFR Part 3, and applicable Forest Service policies and procedures and is subject to their provisions.

B. AUTHORIZED OFFICER. The authorized officer for this permit is the Forest Supervisor or a subordinate officer with delegated authority.

C. ANNUAL REVIEW. If this permit is issued for more than one year, it shall be reviewed annually by the authorized officer.

D. RENEWAL AND EXTENSION. This permit is not renewable. The holder may request an extension of this permit for a limited, specified period to complete activities authorized under this permit. Requests for an extension must be submitted in writing at least one month before expiration of this permit.

E. AMENDMENT. This permit may be amended in whole or in part by the Forest Service when, at the discretion of the authorized officer, such action is deemed necessary or desirable to incorporate new terms that may be required by law, regulation, the applicable land management plan, or projects and activities implementing a land management plan pursuant to 36 CFR Part 215. Any amendments to individuals named in or activities authorized by this permit that are needed by the holder must be approved by the authorized officer in writing.

F. COMPLIANCE WITH LAWS, REGULATIONS, AND OTHER LEGAL REQUIREMENTS. In exercising the privileges granted by this permit, the holder shall comply with all present and future federal laws and regulations and all present and future state, county, and municipal laws, regulations, and other legal requirements that apply to the permit area, to the extent they do not conflict with federal law, regulations, or policy. The Forest Service assumes no responsibility for enforcing laws, regulations, and other legal requirements that fall under the jurisdiction of other governmental entities.

G. NON-EXCLUSIVE USE. The use and occupancy authorized by this permit are not exclusive. The Forest Service reserves the right of access to the permit area, including a continuing right of physical entry to the permit area for inspection, monitoring, or any other purpose consistent with any right or obligation of the United States under any law or regulation. The holder shall allow the authorized officer or the authorized officer's representative full access to the permit area at any time the holder is in the field for purposes of examining the permit area and any recovered materials and related records. The Forest Service reserves the right to allow others to use the permit area in any way that is not inconsistent with the holder's rights and privileges under this permit, after consultation with all parties involved.

H. ASSIGNABILITY. This permit is not assignable or transferable.

II. OPERATIONS

A. OPERATING PLAN. The application corresponding to this permit is incorporated as the operating plan for this permit and is attached as Appendix A. The authorized officer may supplement the information contained in the application as appropriate or necessary.

B. REQUIRED PERMITS. The holder shall obtain all other permits required for conducting the activities authorized by this permit.

C. QUALIFIED INDIVIDUALS. Archaeological project design, literature review, development of regional historical contexts, site evaluation, conservation and protection measures, and recommendations for subsequent investigations shall be developed with direct involvement of an individual who meets the Secretary of the Interior's Standards for Archaeology and Historic Preservation. Fieldwork shall be overseen by an individual who meets the Secretary of the Interior's Standards for Archaeology and Historic Preservation.

D. CONDITION OF OPERATIONS. The holder shall maintain the authorized improvements and permit area to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the authorized officer and consistent with other provisions of this permit. Standards are subject to periodic change by the authorized officer.

E. PROHIBITION ON USE OF MECHANIZED EQUIPMENT IN WILDERNESS AREAS. The holder shall not use mechanized equipment in wilderness areas and shall not use mechanized equipment in proposed or potential wilderness areas without prior written approval from the authorized officer.

F. PROHIBITION ON FLINT KNAPPING AND LITHIC REPLICATION EXPERIMENTS. The holder shall not conduct any flint knapping or lithic replication experiments at any archaeological site, aboriginal quarry source, or non-archaeological site that might be mistaken for an archaeological site as a result of such experiments.

G. PROHIBITION ON IMPEDING OR INTERFERING WITH OTHER USES. The holder shall perform the activities authorized by this permit so as not to impede or interfere with administrative or other authorized uses of National Forest System lands.

H. RESTRICTION ON MOTOR VEHICLE USE. The holder shall restrict motor vehicle use to designated roads, trails, and areas, unless specifically provided otherwise in the operating plan.

I. MINIMIZING GROUND DISTURBANCE. The holder shall keep ground disturbance to a minimum consistent with the nature and purpose of the authorized fieldwork.

J. RESOURCE PROTECTION. The holder shall conduct all activities so as to prevent or minimize scarring, erosion, littering, and pollution of National Forest System lands, water pollution, and damage to watersheds. In addition, the holder shall take precautions at all times to prevent wildfire. The holder may not burn debris without prior written approval from the authorized officer.

K. PREVENTION OF INJURY. The holder shall take precautions to protect livestock, wildlife, the public, and other users of National Forest System lands from accidental injury at any excavation site.

L. DESTRUCTION AND REMOVAL OF TREES. The holder shall not destroy or remove any trees on National Forest System lands without prior written approval from the authorized officer.

M. RESOURCE MANAGEMENT FACILITIES. The holder shall not disturb resource management facilities, such as fences, reservoirs, and other improvements, within the permit area without prior written approval from the authorized officer. Where disturbance of a resource management facility is necessary, the holder shall return it to its prior location and condition.

N. BACKFILLING. The holder shall backfill all subsurface test and excavation sites as soon as possible after recording the results and shall restore subsurface test and excavation sites as closely as possible to their original contour.

O. REMOVAL OF STAKES AND FLAGGING. The holder shall remove temporary stakes and flagging installed by the holder upon completion of fieldwork.

P. SITE RESTORATION. The holder shall restore all camp and work areas to their original condition before vacating the permit area. Refuse shall be carried out and deposited in disposal areas approved by the authorized officer.

Q. TITLE TO ARTIFACTS AND ASSOCIATED DOCUMENTATION. Archaeological and historical artifacts excavated or removed from National Forest System lands and any associated documentation shall remain the property of the United States.

R. NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION (NAGPRA). In accordance with 25 U.S.C. 3002 (d) and 43 CFR 10.4, if the holder inadvertently discovers human remains, funerary objects, sacred objects, or objects of cultural patrimony on National Forest System lands, the holder shall immediately cease work in the area of the discovery and shall make a reasonable effort to protect and secure the items. The holder shall immediately notify the authorized officer by telephone of the discovery and shall follow up with written confirmation of the discovery. The activity that resulted in the inadvertent discovery may not resume until 30 days after the authorized officer certifies receipt of the written confirmation, if resumption of the activity is otherwise lawful, or at any time if a binding written agreement has been executed between the Forest Service and the affiliated Indian tribes that adopts a recovery plan for the human remains and objects.

S. ADDITIONAL REQUIREMENTS. Prior to beginning any fieldwork under the authority of this permit, the holder shall contact the authorized officer responsible for administering the lands involved to obtain further instructions regarding current land and resource conditions.

III. REPORTING REQUIREMENTS

A. PRELIMINARY REPORT. The holder shall submit a preliminary report to the authorized officer within 30 days of completion of the first stage of fieldwork. The preliminary report shall enumerate what was done during the first stage of fieldwork, how it was done, by whom, where, and with what results, including maps, global positioning satellite data, an approved site form for each newly recorded archaeological site, and the holder's professional recommendations regarding resource significance, as appropriate. Depending on the scope, duration, and nature of the work, the authorized officer may require progress reports periodically for the duration of the authorized activities.

B. DRAFT FINAL REPORT. Within 60 days of completion of fieldwork, the holder shall submit an edited draft final report to the authorized officer for review to ensure conformance with applicable laws, regulations, policies, and procedures and the terms and conditions of this permit.

C. FINAL REPORT. The holder shall submit the original final report and at least two copies to the authorized officer within 90 days after completion of fieldwork.

D. BLANKET SURVEY CONSULTING PERMIT. If this is a multi-year survey consulting permit, at the end of each calendar year, the holder shall submit to the authorized officer a report enumerating all activities conducted under this permit.

E. DEPOSIT OF MATERIALS AND DOCUMENTS WITH A CURATORIAL FACILITY. Within 90 days of the date the final report is submitted to the authorized officer, the holder shall deposit all artifacts, samples, and collections and original or clear copies of all records, data, photographs, and other documents resulting from activities authorized by this permit with the curatorial facility named in block 12.

F. CATALOGUE AND EVALUATION OF DEPOSITED MATERIALS. The holder shall provide the authorized officer with a catalogue and evaluation of all materials deposited with the curatorial facility named in block 12, including the facility's accession or catalogue numbers, and confirmation, signed by an authorized curatorial facility official, that artifacts, samples, and collections were deposited with the approved curatorial facility. The confirmation shall include the date the materials were deposited and the type, number, and condition of the deposited materials.

G. CONFIDENTIALITY OF SENSITIVE RESOURCES. The holder agrees to keep the specific location of sensitive resources confidential. Sensitive resources include but are not limited to threatened, endangered, and rare species; archaeological sites; caves; fossil sites; minerals; commercially valuable resources; and traditional cultural properties.

H. CONFIDENTIALITY OF INFORMATION IDENTIFYING ARCHAEOLOGICAL SITES. Without the authorized officer's prior written approval, the holder shall not publish any locational or other information identifying archaeological sites that could compromise their protection and management by the federal government.

I. IDENTIFICATION OF FOREST SERVICE PERMIT. Any published article, paper, or book containing results of work conducted under this permit shall specify that the work was performed in the Angeles National Forest under a Forest Service permit.

J. SUBMISSION OF WRITTEN MATERIALS. The holder shall submit a copy of any published or unpublished report, article, paper, or book resulting from the authorized activities (other than reports required by clauses III.A, B, and C) to the authorized officer and the appropriate official of the curatorial facility named in block 12. The holder shall submit tabular and spatial data to the authorized officer in the format specified in Appendix A.

IV. RIGHTS AND LIABILITIES

A. LEGAL EFFECT OF THE PERMIT. This permit, which is revocable and terminable, is not a contract or a lease, but rather a federal license. The benefits and requirements conferred by this authorization are reviewable solely under the procedures set forth in 36 CFR Part 251, Subpart C, and 5 U.S.C. 704. This permit does not constitute a contract for purposes of the Contract Disputes Act, 41 U.S.C. 601. The permit is not real property, does not convey any interest in real property, and may not be used as collateral for a loan.

B. VALID OUTSTANDING RIGHTS. This permit is subject to all valid outstanding rights. Valid outstanding rights include those derived from mining and mineral leasing laws of the United States. The United States is not liable to the holder for the exercise of any such right.

C. ABSENCE OF THIRD-PARTY BENEFICIARY RIGHTS. The signatories of this permit do not intend to confer any rights on any third party as a beneficiary under this permit.

D. DAMAGE TO UNITED STATES PROPERTY. The holder has an affirmative duty to protect from damage the land, property, and other interests of the United States. Damage includes but is not limited to fire suppression costs, and all costs and damages associated with or resulting from the release or threatened release of a hazardous material occurring during or as a result of activities of the holder or the holder's heirs, assigns, agents, employees, contractors, or lessees on, or related to, the lands, property, and other interests covered by this permit. For purposes of clause IV.F, "hazardous material" shall mean any hazardous substance, pollutant, contaminant, hazardous waste, oil, and/or petroleum product, as those terms are defined under any federal, state, or local laws or regulations.

E. INDEMNIFICATION. The holder shall indemnify, defend, and hold harmless the United States for any costs, damages, claims, liabilities, and judgments arising from past, present, and future acts or omissions of the holder in connection with the use and occupancy authorized by this permit. This indemnification and hold harmless provision includes but is not limited to acts and omissions of the holder or the holder's family, guests, invitees, heirs, assignees, agents, employees, contractors, or lessees in connection with the use and occupancy authorized by this permit which result in (1) violations of any laws and regulations which are now or which may become applicable; (2) judgments, claims, demands, penalties, or

Use Code:
Authorization ID:
Contact ID:

411
Bon
9048

FS-2700-30 (Rev 05/06)
OMB No. 0596-0082

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

APPLICATION FOR PERMIT FOR ARCHAEOLOGICAL
INVESTIGATIONS

<USER NOTES FOR AUTHORITY>

<Select all authorities that apply. Delete any that do not apply.>

Authority:
Archaeological Resources Protection Act of 1979,
16 U.S.C. 470aa-mm

Antiquities Act of 1906,
16 U.S.C. 431-433

Organic Act of 1897
16 U.S.C. 551

Instructions: Complete and return two copies of this application form and required attachments to the appropriate Forest Service administrative unit. All information requested must be completed before the application will be considered. Use separate pages if more space is needed to complete a section.

1. Name of applicant (individual, institution, corporation, partnership, or other entity)

Patrick Maxon, RPA
BonTerra Consulting

2. Mailing address

2 Executive Circle, Suite 175
Irvine, CA 92614

3. Telephone numbers

714-444-9199 (office)
949-677-2393 (mobile)

4. Email addresses

pmaxon@bonterraconsulting.com

5. Nature of archaeological work proposed

- Survey and recordation
- Limited testing (shovel tests, scrapes, probes)
- Formal testing and/or surface collection (project-specific)
- Excavation and/or removal (project-specific)
- Conservation and protection, e.g., ruin stabilization, restoration, rock art conservation, ARPA damage assessments (project-specific)

6. Location of proposed work (attach additional sheets)

The proposed Project is located in Los Angeles County with the majority of the project site in the Angeles National Forest within the San Gabriel Mountains. Portions are within the City of Monrovia.

Project area is shown on the USGS 7.5 minute Mount Wilson, CA quadrangle (1995); Township 1 North, Range 11 West. A copy of the attached map showing the specific project area depicts the proposed survey area.

The Forest Service administrative unit is the Angeles National Forest Los Angeles River Ranger District.

7. Duration of proposed work

Duration of entire project: From December 10, 2012 To December 10, 2013

Duration of fieldwork: 1 day of field work From 12/10/12 To 12/10/13

8. Principal investigator

Patrick Maxon

Principal investigator contact information

949-677-2393 (mobile)
Email addresses:
pmaxon@bonterraconsulting.com

THIS PERMIT IS ACCEPTED SUBJECT TO ALL ITS TERMS AND CONDITIONS.

BEFORE ANY PERMIT IS ISSUED TO AN ENTITY, DOCUMENTATION MUST BE PROVIDED TO THE AUTHORIZED OFFICER OF THE AUTHORITY OF THE SIGNATORY FOR THE ENTITY TO BIND IT TO THE TERMS AND CONDITIONS OF THE PERMIT.

ACCEPTED:

Patrick Maxon, Director - CR, Bonterra Cons. *Patrick Maxon* 12/19/12

 HOLDER NAME, PRECEDED BY NAME AND TITLE OF PERSON SIGNING ON BEHALF OF SIGNATURE DATE
 HOLDER, IF HOLDER IS AN ENTITY

APPROVED:

Robert J Garcia *[Signature]* 12/28/2012

 NAME AND TITLE OF AUTHORIZED OFFICER SIGNATURE DATE
 For Mike McIntyre

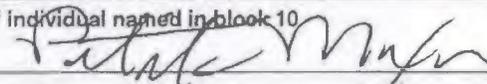
According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond, to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082. The time required to complete this information collection is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and, where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.

The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.

Submit

<p>9. Field directors</p> <p>Patrick Maxon (archaeology) Albert Knight (archaeology) Dave Smith (archaeology) Pamela Daly (history)</p>	<p>Field director contact information</p> <p>Maxon: 714-444-9199 (office) 949-677-2393 (mobile) pmaxon@bonterraconsulting.com</p> <p>Knight 818-426-4730 (mobile) ahunknight@msn.com</p> <p>Smith 949-922-9952 (mobile) ehcaddis@sbcglobal.net</p> <p>Daly 909-649-5149 (mobile) daly.rvrsde@sbcglobal.net</p>
<p>10. Permit holder</p> <p>Patrick Maxon, RPA</p> <p>Name of individual who will be responsible for fulfilling the terms and conditions of the permit or who has authority to bind the entity applying for the permit to its terms and conditions.</p>	<p>Permit holder contact information</p> <p>Telephone numbers: 714-444-9199 (office) 949-677-2393 (mobile)</p> <p>Email addresses: pmaxon@bonterraconsulting.com</p>
<p>11. The applicant must attach the following to the application form:</p> <p>a. A description of the purpose, nature, and extent of the work proposed, including how and why it is proposed to be conducted (include research design, methods, and curation).</p> <p>b. A summary of support capabilities, including the location and a description of necessary facilities and equipment, the personnel to be involved in the proposed work, and, in the case of an applicant that is an entity, its organizational structure and staffing.</p> <p>c. A summary of the applicant's experience in completing the kind of work proposed, including similar projects and government contracts and federal permits that were previously held, that are currently in force, with their effective dates, and that are pending or planned, by agency and region or state, reports or publications resulting from similar work, and any other pertinent experience.</p> <p>d. For each individual named in blocks 8 and 9, a resume including education, training, and experience in the kind of work proposed and in the role proposed.</p> <p>e. A written certification, signed by an authorized official of the proposed curatorial facility, attesting to the facility's capability and willingness to accept any collections, records, data, photographs, and other documents generated during the proposed permit term and to assume permanent curatorial responsibility for those materials on behalf of the United States Government pursuant to 36 CFR Part 79. Archaeological and historical artifacts excavated or removed from National Forest System lands and their associated documentation shall remain the property of the United States. Custody of any Native American human remains or cultural items subject to the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3001-3013, that are removed from National Forest System lands shall be determined in accordance with NAGPRA and its implementing regulations at 43 CFR Part 10.</p>	
<p>12. Proposed publications for results of work conducted under the permit</p> <p>Section 106 compliant Cultural Resources Assessment report using Archaeological Resource Management Reports (ARMR) guidelines.</p>	
<p>13. Signature of individual named in block 10</p> 	<p>14. Date signed</p> <p>11/14/12</p>

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082. The time required to complete this information collection is estimated to average 4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (800) 975-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.

ARPA Permit Attachment

- a. The Santa Anita Stormwater Flood Management and Seismic Strengthening Project (Project) will modify four existing facilities along Santa Anita Wash. These facilities are the Santa Anita Dam (Dam), the Santa Anita Debris Basin (Debris Basin), and the Santa Anita Headworks (Headworks). These facilities, which are operated and maintained by the Los Angeles County Flood Control District (District), serve to control and conserve the floodwaters of the Santa Anita Canyon watershed. This Project will improve District facilities to better manage stormwater runoff from the Santa Anita Canyon watershed and achieve the following goals: (1) reduce flood damage to the downstream communities, (2) increase recharge of the local groundwater basin, and (3) improve public safety by remediating seismic safety issues at the Dam and the Debris Basin.

The purpose of the cultural resources study is to ensure that the proposed project does not adversely impact significant cultural resources. The study will consist of (1) a review of the records search completed for the 2007 Environmental Impact Report (EIR), and an updated records search through the California Historical Resources Information System (CHRIS) at the South Central Coastal Information Center, California State University, Fullerton; (2) Native American Heritage Commission (NAHC) and Native American scoping; (3) a one-day pedestrian survey of the Area of Potential Effects (APE) by Patrick Maxon, Albert Knight and/or Dave Smith and by historian Pamela Daly; and (4) completion of a technical cultural resources report (following Archaeological Resource Management Report [ARMR] guidelines) that summarizes the findings of the study and offers management recommendations.

- b. Patrick Maxon (Principal Investigator), Albert Knight (Archaeology Field Director), and Dave Smith (Archaeology Field Director) will be involved as archaeologists in the study. They meet the Secretary of Interior's Professional Qualification Standards for Archaeology. Pamela Daly (Architectural History) will complete the historical portion of the study. Ms. Daly meets the Secretary of Interior's Professional Qualification Standards for Architectural History.

BonTerra Consulting office support will consist of GIS capabilities to construct project maps, staff support, and computers for documentation purposes. No specialized equipment is necessary.

- c. Mr. Maxon has completed scores of reconnaissance studies over the past 18 years. Mr. Maxon has held ARPA and other use Permits for the Forest Service, Bureau of Reclamation, and USACE; BLM use permits; and permits for the California Energy Commission. In 2010, a Forest Service archaeological investigation permit (LAR9036CRI) was issued to survey portions of Big Tujunga Canyon Road for the County of Los Angeles Department of Public Works (LADPW), and in April 2011 an archaeological permit (LAR9039CRI) was acquired from the Forest Service for a sediment removal project by the LADPW at the Pacoima Reservoir.
- d. Resumes for Patrick Maxon, Albert Knight, Dave Smith and Pamela Daly are attached.
- e. By agreement with the Angeles National Forest, no collections will be made. All items of historical or archaeological nature will be left in place within the Forest and remain property of the United States Government.

APPENDIX C
CULTURAL RESOURCES ASSESSMENT MEMORANDUM

January 17, 2013

Ms. Grace Yu
Department of Public Works
County of Los Angeles
900 South Fremont, 2nd Floor Annex
Alhambra, California 91803-1331

VIA EMAIL
gyu@dpw.lacounty.gov

Subject: Cultural Resources Report for the Sunset Upper Debris Basin Dam Modification Project, City of Burbank, Los Angeles County, California

Dear Ms. Yu:

This Letter Report describes the cultural resources study undertaken for the proposed upgrade to the Sunset Upper Debris Basin Dam Modification Project in Los Angeles County, California. The purpose of the proposed project is to increase the capacity at the debris basin.

The location is shown on the U.S. Geological Survey's (USGS') Burbank, California 7.5-Minute Quadrangle, in Townships 1 and 2 North; Ranges 13 and 14 West, within portions of Sections 5, 6, 31, and 32 (S.B.B.M).

This cultural resources study consists of (1) a cultural resources records search undertaken at the South Central Coastal Information Center (SCCIC) at the California State University, Fullerton; (2) Native American scoping initiated through consultation with the Native American Heritage Commission (NAHC) and mailing informational letters to tribes identified by the NAHC; (3) development of a prehistoric context for the project area; (4) a field visit to the Sunset Upper Debris Basin Dam site; (5) a historic resources assessment of the Sunset Upper Debris Basin Dam; and (6) preparation of this Letter Report, which includes a summary of findings, an assessment of the project's potential to adversely impact cultural resources, and recommendations for mitigating any adverse impacts to a less than significant level. This study was performed under Forest Service Permit for Archaeological Investigations (Authorization ID LAR9048), authorized by Mike McIntyre on December 28, 2012.

1. Cultural Resources Records Search

Archaeological Inventory

An archaeological/historical resources records search conducted by BonTerra Consulting Archaeologist Patrick Maxon, RPA on June 6, 2011, at the SCCIC indicates that no cultural resources sites have been previously recorded and/or evaluated on the project site, and no cultural resources studies have been previously completed on the project site. One site, the Starlight Theater (19-186991) is located within one mile of the project site; two sites are located just 1.2 miles southwest of the Sunset Upper Debris Basin Dam's southern boundary: (1) City of Burbank City Hall (19-180746) and (2) the U.S. Post Office – Burbank Downtown Station (19-180751).



Historic Properties Data File Review

In addition to the archaeological inventory records, reports and historic maps, an examination was made of the Historic Property Data File (HPDF) maintained by the Office of Historic Preservation (OHP). The HPDF is a listing of buildings and structures within a specified city that have been evaluated for listing on the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). Each property is assigned a status code after a determination has been made.

A search of the file at the SCCIC found no structures listed within one mile of the project area; however, the City of Burbank City Hall (NR-85000128) and the U.S. Post Office – Burbank Downtown Station (NR-96000426), located 1.2 miles from the Sunset Upper Debris Basin Dam, are both listed on the NRHP.

The Glendale (1928; reprinted 1948) and La Crescenta (1939) historic USGS quadrangles show numerous structures along Sunset Canyon Road within the Sunset Lower Watershed (#3). Many of these same structures are still depicted on the current quadrangle (Burbank 1966; photorevised 1972; minor revision 1994).

2. Native American Scoping

A Sacred Lands File Search was requested of the NAHC, which responded by letter on June 21, 2011. The search did not identify the presence of Native American cultural resources within the project area. The NAHC suggests early consultation with local Native American tribes. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area.

The Native American Contacts List included in the search listed the following individuals:

- Charlie Cook;
- Ron Andrade Director, Native American Indian Commission;
- John Tommy Rosas, Tribal Administrator Gabrielino Tongva Territorial Tribal Nation;
- John Valenzuela, Chairperson, San Fernando Band of Mission Indians;
- Anthony Morales, Chairperson, Gabrielino/Tongva San Gabriel Band of Mission Indians;
- Sam Dunlap, Tribal Secretary, Gabrielino Tongva Nation;
- Robert Dorame, Tribal Chair/Cultural Resources Gabrielino Tongva Indians of California Tribal Council;
- Bernie Acuna, Gabrielino-Tongva Tribe;
- Andy Salas, Chairperson, Shoshoneon Gabrieleno Band of Mission Indians; and
- Linda Candelaria, Chairwoman, Gabrielino-Tongva Tribe.

All individuals and tribes on the list were mailed a letter on June 28, 2011, affording them an opportunity to comment on the project and share any knowledge they have of cultural resources in the project vicinity.

All data collected during Native American scoping are maintained on file at BonTerra Consulting; however, no responses to the inquiry letters have been received to date.

3. Cultural Context

The first useful chronology for Southern California was developed by William Wallace (1955), who described four distinct periods or horizons applicable to the Southern California coastal region as well as inland expressions of Native American culture. Although dated, the chronology's relative accuracy has been vindicated by more recent radiocarbon dates.

Horizon I: Early Man. This initial horizon, relying largely on large game animals that gradually became extinct after the terminal Pleistocene Epoch, dates from an unknown time near the end of the Pleistocene to about 5,500 Before Common Era (BCE).

Horizon II: Milling Stone Assemblages. This successful adaptation, which marked the widespread use of milling tools, persisted essentially unchanged until around 3,000 BCE.

Horizon III: Intermediate Cultures. This period, marked by the introduction of the mortar and pestle allowing for the widespread exploitation of the acorn as a food resource, extended to approximately 1,000 Common Era (CE).

Horizon IV: Late Prehistoric Cultures. This adaptation was marked by population increases; the development of larger, more permanent villages; the widespread use of the bow and arrow; and a generally more complex society.

During the late prehistoric period, the project area was occupied by the Native American societies known to anthropologists as the Fernandeño, a subgroup of the larger Gabrielino population that occupied the Los Angeles Basin. The name "Gabrielino" refers to those people who, in historic times, were administered by the Spanish from Mission San Gabriel. The name "Fernandeño" refers to those people who, in historic times, were administered by the Spanish from Mission San Fernando Rey de España. The Gabrielino arrived in the Los Angeles Basin probably before 500 BCE as part of the so-called Shoshonean (Takic speaking) Wedge from the Great Basin region and gradually displaced the indigenous peoples, probably Hokan speakers. Large, permanent villages were established in the fertile lowlands along rivers and streams and in sheltered areas along the coast. Eventually, Gabrielino territory encompassed the greater Los Angeles Basin, coastal regions from Topanga Canyon in the north to perhaps as far south as Aliso Creek, and the islands of San Clemente, San Nicholas, and Santa Catalina (Bean and Smith 1978:538–540). Recent studies suggest the population may have numbered as many as 10,000 individuals at their peak prior to European contact.

The subsistence economy of the Gabrielino was hunting and gathering. The surrounding environment was rich and varied and the natives were able to exploit mountains, foothills, valleys, deserts and coasts. As with most native Californians, acorns were the staple food (by the Intermediate Horizon), which were supplemented by the roots, leaves, seeds, and fruit of a wide variety of flora (e.g., cactus, yucca, sage, agave). Fresh and saltwater fish, shellfish, birds, insects, as well as large and small mammals, were exploited.

A wide variety of tools and implements were employed by the Gabrielino to gather, collect, and process food resources. The most important hunting tool was the bow and arrow. Traps, nets, blinds, throwing sticks, and slings were also employed. Fish were an important resource and nets, traps, spears, harpoons, hooks, and poisons were used to catch them. Ocean-going plank canoes and tule balsa canoes were used for fishing and for travel by those groups residing near the Pacific Ocean (Moratto 1990:63).

HISTORIC RESOURCES ASSESSMENT REPORT

Of

Sunset Canyon Upper Debris Basin Burbank, Los Angeles County, CA

**Owned by: Los Angeles County Flood Control District
Maintained by: County of Los Angeles Department of Public Works**

**(Northeast ¼ of Northwest ¼ of Section 6, Township 1 North, Range 13 West
San Bernardino Base and Meridian)**

Prepared for:
BonTerra Consulting
151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

Prepared by
Pamela Daly, M.S.H.P.
Daly & Associates
4486 University Avenue
Riverside, CA 92501



November 2011



TRANSMITTAL

DATE: December 20, 2012

TO: Mr. Dave Singleton
Program Analyst
Native American Heritage Comm.
915 Capitol Mall, Rm. 364
Sacramento, CA 95814

FAX NUMBER: (916) 657-5390
TEL NUMBER: (916) 653-6251
PROJECT: **Santa Anita Dam Project**
FROM: Patrick Maxon, RPA

Fax / Pages__ E-Mail Fed Ex / Overnite Express Delivery / Courier

REGARDING: Sacred Lands File Search and Contact List Request

Dear Mr. Singleton:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Santa Anita Dam Project** located in unincorporated Los Angeles County, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines).

At your earliest convenience, please conduct a search of the Sacred Lands File for the proposed project, located within Township 1 North; Range 11 West of the USGS **Mt. Wilson, CA 7.5 Minute Quadrangle**. Refer to attached exhibit.

The Santa Anita Stormwater Flood Management and Seismic Strengthening Project will modify four existing facilities related to the Santa Anita Dam along Santa Anita Wash. These facilities are the Santa Anita Dam itself, the Santa Anita Debris Basin approximately one mile downstream, and the Santa Anita Headworks situated between them. These facilities, which are operated and maintained by the Los Angeles County Flood Control District, serve to control and conserve the floodwaters of the Santa Anita Canyon watershed. This watershed is mostly undeveloped with the majority of it located in the Angeles National Forest within the San Gabriel Mountains, which are very steep and among the most highly erosive mountains in the world. This watershed is also susceptible to wildfires, which result in tremendous debris flows during subsequent storm events. The facilities are located within one mile of the Sierra Madre Fault, which is capable of a producing a maximum credible earthquake (MCE) of magnitude 7.5.

The proposed Project will improve District facilities to better manage stormwater runoff from the Santa Anita Canyon watershed and achieve the following goals: 1) reduce flood damage to the downstream communities, 2) increase recharge of the local groundwater basin and 3) improve public safety by remediating seismic safety issues at the Dam and the Debris Basin.

Please fax the results to me at (714) 444-9599, or e-mail to p.maxon@bonterraconsulting.com, referencing your letter to the "**Santa Anita Dam Project**".

If you have any questions or require any additional information, please do not hesitate to contact me at (714) 444-9199 or via email.

Sincerely,

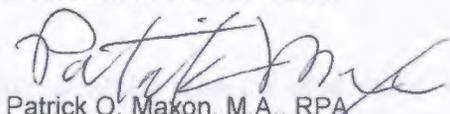
6. Summary

- The cultural resources record search indicates that there is one historic-era site within a one-mile radius of the project area. No prehistoric sites are recorded within the one-mile area.
- The additional area behind the Sunset Upper Debris Basin Dam that could be inundated as a result of the project have been surveyed by an archaeologist. No resources were discovered and none are expected. Therefore, no cultural resource monitoring or other further consideration of archaeological resources is necessary during construction and operation of the project.
- The Sunset Upper Debris Basin Dam exceeds 50 years of age, and therefore meets the minimum age guideline for recordation or evaluation of a historic resource for listing in the NRHP and CRHR. The historic resources assessment completed for the Sunset Upper Debris Basin Dam concludes that it does not meet any of the significance criteria described in the NRHP, CRHR, or DHR. Therefore, no further consideration need be given to the Sunset Canyon Upper Debris Basin and associated structures as an historic cultural resource.

Please contact Patrick Maxon at (714) 444-9199 or pmaxon@bonterraconsulting.com with any questions.

Best regards,

BONTERRA CONSULTING



Patrick O. Maxon, M.A., RPA
Director, Cultural Resources

Attachment A – Historic Resources Assessment Report (2011)

The processing of food resources was accomplished in a variety of ways: nuts were cracked with hammer stone and anvil; acorns were ground with mortar and pestle, seeds and berries with mano and metate. Yucca, an important resource in many areas, was eaten by the natives, as well as exploited for its fibers.

Strainers, leaching baskets and bowls, knives, bone saws, and wooden drying racks were also employed. Food was consumed from a variety of vessels. Catalina Island steatite was used to make ollas and cooking vessels (Kroeber 1925:629).

Gabrielino houses were circular, domed structures of willow poles thatched with tule. They were actually quite large and could in some cases hold fifty individuals. Other structures served as sweatshops, menstrual huts, and ceremonial enclosures (Bean and Smith 1978).

Kroeber (1925:621) considered the Gabrielino:

...to have been the most advanced group south of Tehachapi, except perhaps the Chumash. They certainly were the wealthiest and most thoughtful of all the Shoshoneans of the State, and dominated these civilizationally wherever contacts occurred.

Post-contact history for the State of California generally is divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Although there were brief visits by Spanish, Russian, and British explorers between 1529 and 1769, the beginning of Spanish settlement in California occurred in 1769.

4. Field Visit

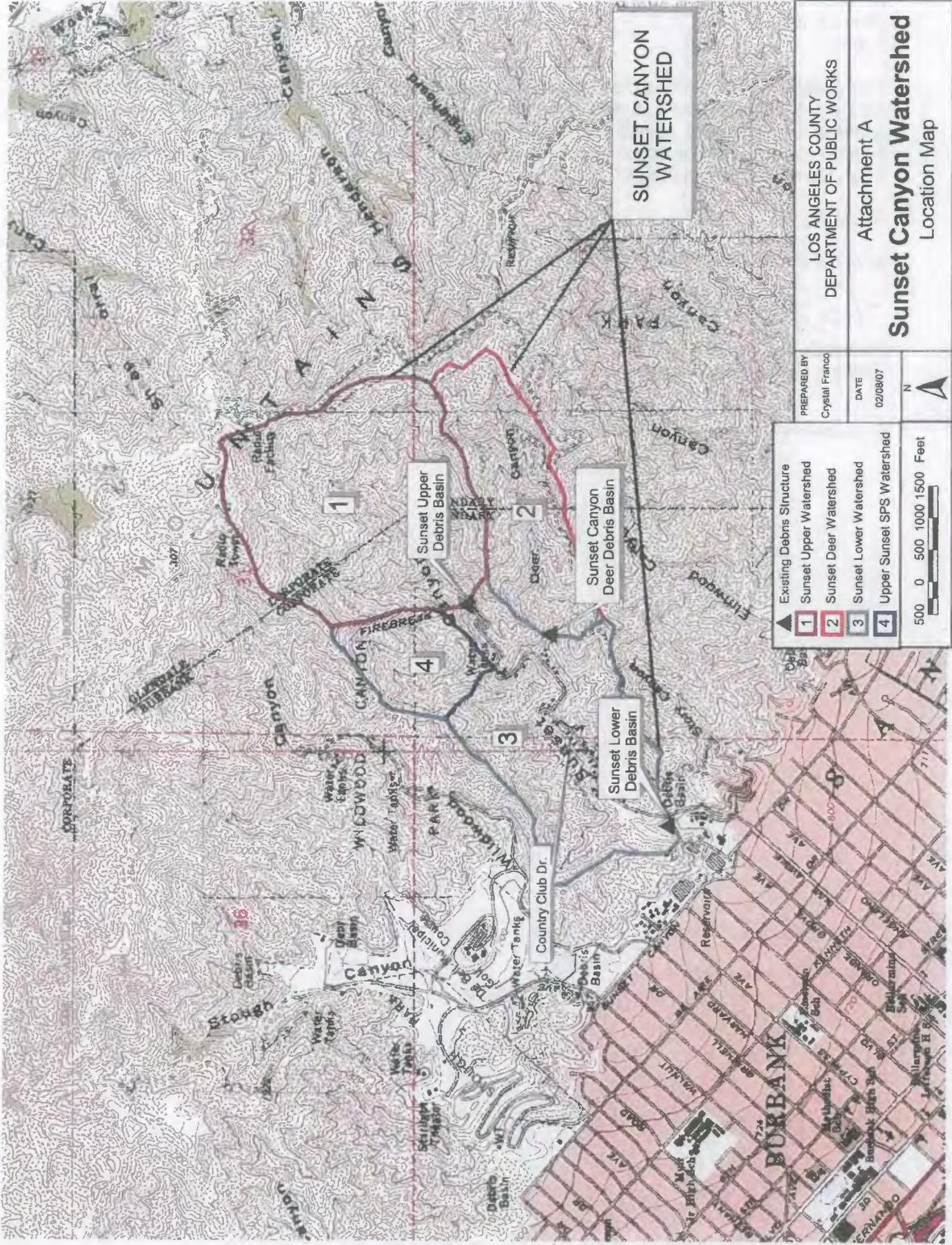
Because the construction of a larger dam would have the potential to inundate additional areas at the edges of the existing debris basin, BonTerra Consulting conducted a field visit to the project site to examine those additional areas for the presence of cultural resources. On October 27, 2011, BonTerra Consulting archaeologist Brady Long completed a survey of the debris basin area. Mr. Long examined all accessible areas around the dam and debris basin and viewed the potential additional inundation area where possible. No cultural resources were discovered and, because of the steep terrain at the margins of the dam, no resources are expected in those areas.

5. Historic Resources Assessment

Given that the Sunset Upper Debris Basin Dam exceeds 50 years of age and will be modified as part of the proposed project, Pamela Daly of Daly and Associates was retained to conduct a historic resources assessment and evaluation of the Sunset Upper Debris Basin Dam and its associated structures for its eligibility for listing in the NRHP, CRHR, or as a Designated Historic Resource (DHR) in the City of Burbank.

Ms. Daly conducted research, completed a field survey, and produced a Department of Parks and Recreation (DPR) 523 Series Site Record and evaluation report for the debris basin. In summary, the Sunset Upper Debris Basin Dam and associated features were found ineligible for listing in the NAHC, CRHR, or as a DHR. It does not meet any of the significance criteria (A/1/A, B/2/B, C/3/C, or D/4/D) described in the NRHP (A, B, C, or D), CRHR (1, 2, 3, or 4) or DHR (A, B, C, or D). Therefore, no further consideration need be given to the Sunset Upper Debris Basin Dam and associated structures as an historic cultural resource. The Historic Resources Assessment Report (2011) is included as Attachment A to this Letter Report.

ATTACHMENT A
HISTORIC RESOURCES ASSESSMENT REPORT (2011)



**SUNSET CANYON
WATERSHED**

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS

Attachment A

Sunset Canyon Watershed
Location Map

PREPARED BY
Crystal Franco

DATE
02/08/07



- ▲ Existing Debris Structure
- 1 Sunset Upper Watershed
- 2 Sunset Deer Watershed
- 3 Sunset Lower Watershed
- 4 Upper Sunset SPS Watershed

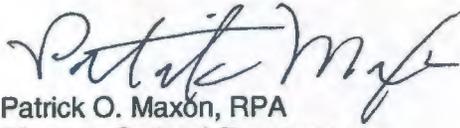


Mr. John Valenzuela
June 28, 2011
Page 2

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "Sunset Upper Debris Basin Dam Modification Project".

Sincerely,

BONTERRA CONSULTING



Patrick O. Maxon, RPA
Director, Cultural Resources

June 28, 2011

Mr. John Valenzuela
San Fernando Band of Mission Indians
P.O. Box 221838
Newhall, California 91322

Subject: Sunset Upper Debris Basin Dam Modification Project

Dear Mr. Valenzuela:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed Sunset Upper Debris Basin Dam Modification Project located near the City of Burbank, Los Angeles County, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

Location

The project location is shown on the USGS *Burbank, CA 7.5 Minute Quadrangles* in Township 1 and 2 North; Range 13 and 14 West, portions of Sections 5, 6, 31, and 32 (*S.B.B.M.*). Refer to attached exhibit.

Project

The project entails the construction of an extension to the existing dam at the Sunset Upper Debris Basin to increase the capacity of the basin.

NAHC Notification

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) did not identify the presence of Native American cultural resources on the project site. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area. Your name and contact information was included on the list and serves as the basis for this letter.

Records Search/Survey

An archaeological/historic records search was conducted at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton to evaluate the existing conditions of the project site. No resources have been recorded on or within one mile of the project site.

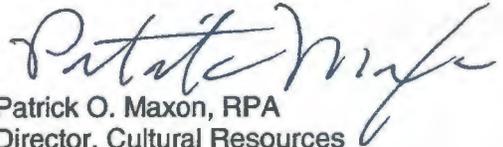


Mr. Andy Salas
June 28, 2011
Page 2

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "Sunset Upper Debris Basin Dam Modification Project".

Sincerely,

BONTERRA CONSULTING



Patrick O. Maxon, RPA
Director, Cultural Resources

June 28, 2011

Mr. Andy Salas
Shoshoneon Gabrieleno Band of Mission Indians
P.O. Box 393
Covina, California 91723

Subject: Sunset Upper Debris Basin Dam Modification Project

Dear Mr. Salas:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed Sunset Upper Debris Basin Dam Modification Project located near the City of Burbank, Los Angeles County, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

Location

The project location is shown on the USGS *Burbank, CA* 7.5 Minute Quadrangles in Township 1 and 2 North; Range 13 and 14 West, portions of Sections 5, 6, 31, and 32 (*S.B.B.M.*). Refer to attached exhibit.

Project

The project entails the construction of an extension to the existing dam at the Sunset Upper Debris Basin to increase the capacity of the basin.

NAHC Notification

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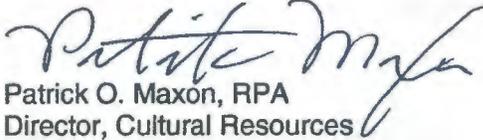


Mr. John Tommy Rosas
June 28, 2011
Page 2

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "Sunset Upper Debris Basin Dam Modification Project".

Sincerely,

BONTERRA CONSULTING



Patrick O. Maxon, RPA
Director, Cultural Resources

June 28, 2011

Mr. John Tommy Rosas
Tongva Ancestral Territorial Tribal Nation

VIA EMAIL
tattnlaw@gmail.com

Subject: Sunset Upper Debris Basin Dam Modification Project

Dear Mr. Rosas:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed Sunset Upper Debris Basin Dam Modification Project located near the City of Burbank, Los Angeles County, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

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Mr. Anthony Morales
June 28, 2011
Page 2

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Sincerely,

BONTERRA CONSULTING



Patrick O. Maxon, RPA
Director, Cultural Resources

June 28, 2011

Mr. Anthony Morales
Gabrieleno/Tongva Tribal Council
P.O. Box 693
San Gabriel, California 91778

Subject: Sunset Upper Debris Basin Dam Modification Project

Dear Mr. Morales:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed Sunset Upper Debris Basin Dam Modification Project located near the City of Burbank, Los Angeles County, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

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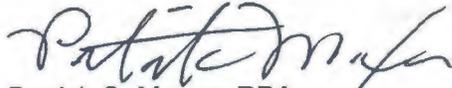


Mr. Samuel H. Dunlap
June 28, 2011
Page 2

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Sincerely,

BONTERRA CONSULTING



Patrick O. Maxon, RPA
Director, Cultural Resources

June 28, 2011

Mr. Samuel H. Dunlap
Gabrielino/Tongva Council / Gabrielino Tongva Nation
PO Box 86908
Los Angeles, California 90086

Subject: Sunset Upper Debris Basin Dam Modification Project

Dear Mr. Dunlap:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed Sunset Upper Debris Basin Dam Modification Project located near the City of Burbank, Los Angeles County, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

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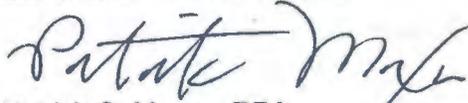


Mr. Robert Dorame
June 28, 2011
Page 2

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Sincerely,

BONTERRA CONSULTING

A handwritten signature in black ink, appearing to read "Patrick O. Maxon". The signature is fluid and cursive, written over the printed name below.

Patrick O. Maxon, RPA
Director, Cultural Resources

June 28, 2011

Mr. Robert Dorame
Gabrielino Tongva Indians of California Tribal Council
PO Box 490
Bellflower, California 90707

Subject: Sunset Upper Debris Basin Dam Modification Project

Dear Mr. Dorame:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed Sunset Upper Debris Basin Dam Modification Project located near the City of Burbank, Los Angeles County, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

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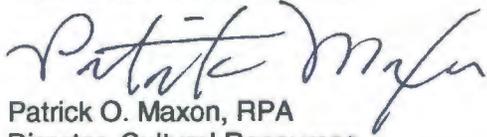


Mr. Charles Cooke
June 28, 2011
Page 2

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Sincerely,

BONTERRA CONSULTING

A handwritten signature in black ink that reads "Patrick O. Maxon". The signature is fluid and cursive, with the first name being the most prominent.

Patrick O. Maxon, RPA
Director, Cultural Resources

June 28, 2011

Mr. Charles Cooke
Tehachapi Indian Tribe
32835 Santiago Road
Acton, California 93510

Subject: Sunset Upper Debris Basin Dam Modification Project

Dear Mr. Cooke:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed Sunset Upper Debris Basin Dam Modification Project located near the City of Burbank, Los Angeles County, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

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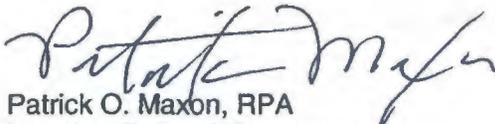


Ms. Linda Candelaria
June 28, 2011
Page 2

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Sincerely,

BONTERRA CONSULTING

A handwritten signature in black ink, appearing to read "Patrick Maxon". The signature is fluid and cursive, with a large initial "P" and "M".

Patrick O. Maxon, RPA
Director, Cultural Resources

June 28, 2011

Ms. Linda Candelaria
Gabrielino-Tongva Tribe
1875 Century Park East 1500
Los Angeles, California 90067

Subject: Sunset Upper Debris Basin Dam Modification Project

Dear Ms. Candelaria:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed Sunset Upper Debris Basin Dam Modification Project located near the City of Burbank, Los Angeles County, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

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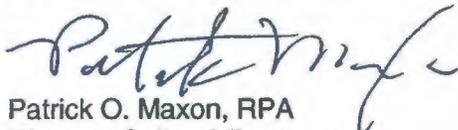


Mr. Ron Andrade
June 28, 2011
Page 2

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Sincerely,

BONTERRA CONSULTING



Patrick O. Maxon, RPA
Director, Cultural Resources

June 28, 2011

Mr. Ron Andrade
LA City/County Native American Indian Comm.
3175 W. 6th Street, Rm. 403
Los Angeles, California 90020

Subject: Sunset Upper Debris Basin Dam Modification Project

Dear Mr. Andrade:

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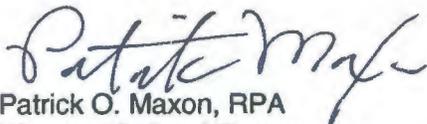


Mr. Bernie Acuna
June 28, 2011
Page 2

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Sincerely,

BONTERRA CONSULTING



Patrick O. Maxon, RPA
Director, Cultural Resources

June 28, 2011

Mr. Bernie Acuna
Gabrielino-Tongva Tribe
1875 Century Park East 1500
Los Angeles, California 90067

Subject: Sunset Upper Debris Basin Dam Modification Project

Dear Mr. Acuna:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed Sunset Upper Debris Basin Dam Modification Project located near the City of Burbank, Los Angeles County, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

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California Native American Contact List
Los Angeles County
June 21, 2011

Shoshoneon Gabrieleno Band of Mission Indians
Andy Salas, Chairperson
PO Box 393 Gabrieleno
Covina , CA 91723
(626) 926-4131
gabrielenoindians@yahoo.
com
(213) 688-0181 - FAX

Gabrielino-Tongva Tribe
Linda Candelaria, Chairwoman
1875 Century Park East, Suite 1500
Los Angeles , CA 90067 Gabrielino
lcandelaria1@gabrielinoTribe.org
626-676-1184- cell
(310) 587-0170 - FAX
760-904-6533-home

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.6 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Sunset Upper Debris Basin Dam Modification Project; located in the Burbank area; Los Angeles County, California for which a Sacred Lands File search and Native American Contacts list were requested.

**California Native American Contact List
Los Angeles County
June 21, 2011**

Charles Cooke
32835 Santiago Road
Acton , CA 93510
suscol@intox.net

(661) 733-1812 - cell
suscol@intox.net

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th St, Rm. 403
Los Angeles , CA 90020
randrade@css.lacounty.gov
(213) 351-5324
(213) 386-3995 FAX

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
Private Address
tattnlaw@gmail.com
310-570-6567

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838
Newhall , CA 91322
tsen2u@hotmail.com
(661) 753-9833 Office
(760) 885-0955 Cell
(760) 949-1604 Fax

Chumash
Fernandeno
Tataviarn
Kitanemuk

Fernandeño
Tataviam
Serrano
Vanyume
Kitanemuk

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 -FAX

Gabrielino Tongva

Gabrielino Tongva Nation
Sam Dunlap, Chairperson
P.O. Box 86908
Los Angeles , CA 90086
samdunlap@earthlink.net

Gabrielino Tongva

(909) 262-9351 - cell

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490
Bellflower , CA 90707
gtongva@verizon.net
562-761-6417 - voice
562-761-6417- fax

Gabrielino Tongva

Gabrielino-Tongva Tribe
Bernie Acuna
1875 Century Pk East #1500
Los Angeles , CA 90067
(760) 721-0371-work
(310) 428-7720 - cell
(310) 587-0170 - FAX
bacuna1@gabrieinotribe.org

Gabrielino

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significant impact on the environment as "substantial," and Section 2183.2 which requires documentation, data recovery of cultural resources.

Partnering with local tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 4(f), Section 110 (f)(k) of federal NHPA (16 U.S.C. 470 *et seq.*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C. 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation.

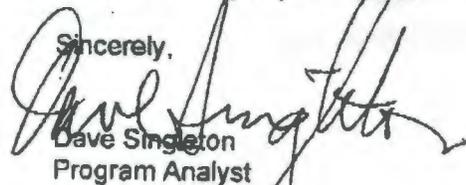
Also, California Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery', another important reason to have Native American Monitors on board with the project.

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. An excellent way to reinforce the relationship between a project and local tribes is to employ Native American Monitors in all phases of proposed projects including the planning phases.

Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of the NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibility threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,



Dave Singleton
Program Analyst

Attachment: Native American Contact List

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 384
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net



June 21, 2011

Mr. Patrick Maxon, RPA – Director, Cultural Resources

BonTerra Consulting

151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

Sent by FAX to: 714-444-9599

No. of Pages: 4

Re: Sacred Lands File Search and Native American Contacts list for the "Proposed
Sunset Upper Debris Basin Dam Modification Project" located in the Burbank
Area; Los Angeles County, California

Dear Mr. Maxon:

The Native American Heritage Commission (NAHC) conducted a Sacred Lands File search of the 'areas of potential effect,' (APEs) based on the USGS coordinates provided and found **Native American cultural resources were not identified** in the USGS coordinates you specified. Also, please note; the NAHC Sacred Lands Inventory is not exhaustive; Native American cultural resources may be inadvertently discovered during ground-breaking activity.

The California Environmental Quality Act (CEQA – CA Public Resources Code §§ 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance.' In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. CA Government Code §65040.12(e) defines "environmental justice" provisions and is applicable to the environmental review processes.

Early consultation, even during Initial Study or First Phase surveys with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Local Native Americans may have knowledge of the religious and cultural significance of the historic properties of the proposed project for the area (e.g. APE). Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). We urge consultation with those tribes and interested Native Americans on the list of Native American Contacts we attach to this letter in order to see if your proposed project might impact Native American cultural resources. Lead agencies should consider avoidance as defined in §15370 of the CEQA Guidelines when significant cultural resources as defined by the CEQA Guidelines §15064.5 (b)(c)(f) may be affected by a proposed project. If so, Section 15382 of the CEQA Guidelines defines a

BONTERRA CONSULTING

A handwritten signature in black ink, appearing to read "Patrick Maxon". The signature is fluid and cursive, with the first name "Patrick" and last name "Maxon" clearly distinguishable.

Patrick Maxon, RPA
Director, Cultural Resources

SCCIC Bibliography: Sunset Canyon Debris Basin

LA-00795

Author(s): Tartaglia, Louis J.
Year: 1980
Title: Cultural Resource Survey of a Proposed Class II Landfill
Affiliation:
Resources:
Quads: BURBANK
Pages:
Notes:

LA-00949

Author(s): Dillon, Brian D.
Year: 1981
Title: An Archaeological Resource Survey and Impact Assessment of Three Telecommunications Tower Sites for the Southern California Rapid Transit District in Los Angeles County, California
Affiliation: University of California, Los Angeles Archaeological Survey
Resources:
Quads: BURBANK, SAN PEDRO
Pages:
Notes:

LA-03516

Author(s): Wlodarski, Robert J.
Year: 1997
Title: Phase 1 Archaeological Study: Oakmont Eir (tentative Tract Map #51548) City of Glendale, County of Los Angeles, California
Affiliation: Historical, Environmental, Archaeological, Research, Team
Resources:
Quads: BURBANK, PASADENA
Pages:
Notes:

LA-05022

Author(s): Iverson, Gary
Year: 1999
Title: Negative Archaeological Survey Report: 178600
Affiliation: Caltrans District 7
Resources:
Quads: BURBANK
Pages:
Notes:

REFERENCES

Bean, L.J. and C.R. Smith

- 1978 Gabrielino. In *Handbook of North American Indians, California*, Vol 8, Robert F. Heizer (editor), pp. 538-549. Smithsonian Institution, Washington D. C.

Daly, Pamela

- 2011 Historic Resources Assessment Report of Sunset Canyon Upper Debris Basin, Burbank, Los Angeles County, California.

Kroeber, Alfred J.

- 1925 *Handbook of the Indians of California*. Dover Publications, Inc. New York.

Moratto, Michael J.

- 1990 *Cultural and Paleontologic Resources in the Santa Susana and Santa Monica Mountains, Los Angeles County, California*. On file, South Central Coastal Information Center, California State University, Fullerton.

Wallace, William J.

- 1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* II :214-23th.

SCCIC Bibliography: Sunset Canyon Debris Basin

LA-08255

Author(s): Arrington, Cindy and Nancy Sikes

Year: 2006

Title: Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project
State of California: Volumes I and II

Affiliation: SWCA Environmental Consultants, Inc.

Resources:

Quads: ANAHEIM, BLACK MTN, BURBANK, CAMARILLO, CANOGA PARK, DANA POINT, EL TORO, FRAZIER MOUNTAIN, HOLLYWOOD, INGLEWOOD, LEBEC, LIEBRE MTN, LONG BEACH, LOS ALAMITOS, LOS ANGELES, MOORPARK, NEWHALL, NEWPORT BEACH, OAT MOUNTAIN, ORANGE, OXNARD, PITAS POINT, SAN CLEMENTE, SAN FERNANDO, SAN JUAN CAPISTRANO, SANTA SUSANA, SATICOY, SIMI, SOUTH GATE, TUSTIN, VAN NUYS, VENICE, VENTURA, WARM SPRINGS MOUNTAIN, WHITAKER PEAK, WHITE LEDGE PEAK, WHITTIER

Pages:

Notes: Same as OR3373, VN2504

LA-08693

Author(s): Bonner, Wayne H.

Year: 2007

Title: Cultural Resources Records Search and Site Visit Results for T-mobile Candidate Sv00821c (burbank Water Tank), 300 North Sunset Canyon Road, Burbank, Los Angeles County, California

Affiliation: Michael Brandman Associates

Resources:

Quads: BURBANK

Pages:

Notes:

LA-10521

Author(s): Bonner, Wayne

Year: 2001

Title: Cultural Resources Assessment - Canyon Hills Project, City and County of Los Angeles, California

Affiliation: W. H. Bonner Associates

Resources:

Quads: BURBANK, SUNLAND

Pages: 17

Notes:

EXHIBIT B

BonTerra
CONSULTING



FINAL INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

RESPONSE TO COMMENTS AND ERRATA

SUNSET UPPER DEBRIS BASIN DAM MODIFICATION PROJECT COUNTY OF LOS ANGELES, CALIFORNIA

SCH No. 2013031018

Prepared for | County of Los Angeles
Department of Public Works
Water Resources Division
900 South Fremont Avenue, Second Floor
Alhambra, California 91803

Prepared by | BonTerra Consulting
225 South Lake Avenue, Suite 1000
Pasadena, California 91101
T: (626) 351-2000 F: (626) 351-2030

August 2013

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Section 1.0 Introduction	1
Section 2.0 Public Comment Letters and County Responses	3
Section 3.0 Errata	21

SECTION 1.0 INTRODUCTION

Pursuant to the California Environmental Quality Act (CEQA), the potential environmental effects of the proposed Sunset Upper Debris Basin Dam Modification Project (Project) have been analyzed in an Initial Study/Mitigated Negative Declaration (IS/MND) (SCH No. 2013031018) dated February 2013. Pursuant to Section 15367 of the CEQA Guidelines, the Los Angeles County Flood Control District (LACFCD), now administered by the Los Angeles County Department of Public Works (LACDPW), is the Lead Agency for the Project. The Lead Agency is the public agency that has the principal responsibility for carrying out a project and also has the authority for approval of the Project and its accompanying environmental documentation.

Section 15074(b) of the CEQA Guidelines states that, prior to approving a project, the Lead Agency must consider the proposed IS/MND together with any comments received during the public review process. The Lead Agency must adopt the proposed IS/MND, only if it finds on the basis of the whole record before it, that there is no substantial evidence that the project would have a significant effect on the environment and that the IS/MND reflects the Lead Agency's independent judgment and analysis.

1.1 CEQA AND PUBLIC REVIEW OF THE IS/MND

In accordance with Section 15073 of the CEQA Guidelines, the Draft IS/MND was distributed on March 4, 2013, for a 30-day public review period from March 6, 2013, through April 5, 2013. Consistent with Sections 15072(b) and 15072(d) of the CEQA Guidelines, a Notice of Intent to Adopt the IS/MND (NOI) was published in the *Los Angeles Times*; directly mailed to the 135 residences located downstream of the Sunset Upper Debris Basin Dam on Country Club Drive/Olive Avenue to its intersection with Kenneth Road; and filed with the County of Los Angeles County Clerk/Registrar-Recorder in the City of Norwalk (County Clerk). The Draft IS/MND and NOI or the NOI only was provided to 13 interested agencies and/or groups and to 135 individuals; it was also made available for review at the Burbank Central Library and Buena Vista Branch Library, both in the City of Burbank, during normal business hours and online at <http://dpw.lacounty.gov/wrd/CEQA/Sunset/>.

On March 6, 2013, the first day of the review period, it was determined that the website address printed in the NOI had a minor typographical error and would not have directed a reviewer to the correct webpage to view the IS/MND. The LACFCD immediately prepared a revised NOI to be mailed to all mailing list addressees, including the Governor's Office of Planning and Research and the County Clerk, which revised the website address as well as extended the review period by one week (7 days) to end on April 12, 2013.

Four comment letters, three from agencies and one standard receipt letter from Governor's Office of Planning and Research State Clearinghouse (regarding receipt of the revised NOI) were received during the public review period. The LACFCD's responses to comments contained in these letters are provided in Section 2.0 below, and any errata to the IS/MND are provided in Section 3.0 below. The revision pertaining to the website address noted above was documented via the revised NOI distribution. It is noted that there were no comments pertaining to the adequacy of the CEQA document. The agency comments were either procedural letters or in support of the project.

The LACFCD has reviewed all comments received from agencies, organizations and/or individuals to determine whether any substantial new environmental issues have been raised. Based on the evaluation in the Draft IS/MND together with all comments received, the LACFCD

has determined that no substantial new environmental issues have been raised that have not been adequately addressed in the Draft IS/MND and/or in the Mitigation Monitoring and Reporting Program and Responses to Comments. All potential impacts associated with the proposed Project were found to be less than significant with incorporation of relevant mitigation measures, where applicable. Therefore, the proposed Project would not result in any significant impacts, and a Mitigated Negative Declaration in accordance with the CEQA Guidelines is the appropriate environmental document for the proposed Project.

Therefore, this document, combined with the Draft IS/MND, constitutes the Final IS/MND for the proposed Sunset Upper Debris Basin Dam Modification Project. This document includes all public comment letters; the LACFCD responses; and the State Clearinghouse letter that documents receipt and distribution of the revised NOI. The County of Los Angeles Board of Supervisors will consider adoption of the Sunset Upper Debris Basin Dam Modification Project Final IS/MND and approval of the proposed Project.

SECTION 2.0 PUBLIC COMMENT LETTERS AND COUNTY RESPONSES

Letters commenting on the information and analysis in the Draft IS/MND were received from the following parties during and subsequent to the public review period:

State

- State of California, Governor's Office of Planning and Research, March 12, 2013.
- California Department of Water Resources, Division of Safety of Dams, March 26, 2013.

County and Local

- County of Los Angeles Fire Department, March 29, 2013.
- City of Burbank, Department of Public Works, April 12, 2013.

Each letter listed above is included in this document, followed by the LACFCD response to each comment. Each comment letter has been divided into sequential numbered comments (i.e., 1, 2, 3, etc.), as shown on the enclosed letters. Each numbered comment corresponds to a matching numbered response.

SCH



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX
DIRECTOR

Memorandum

Date: March 12, 2013
To: All Reviewing Agencies
From: Scott Morgan, Director
Re: SCH # 2013031018
Sunset Upper Debris Basin Dam Modification

Pursuant to the attached letter, the Lead Agency has *revised* some information pertaining to and has *extended* the review period for the above referenced project to **April 12, 2013** to accommodate the review process. All other project information remains the same.

cc: Grace Yu
Los Angeles County Flood Control District
900 South Fremont Avenue, 2nd Floor
Alhambra, CA 91803

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov



GAIL FARBER, Director

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
<http://dpw.lacounty.gov>

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: WR-6

VIA E-MAIL – state.clearinghouse@opr.ca.gov

March 12, 2013

Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

To Whom It May Concern:

**REVISED NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE
DECLARATION FOR THE SUNSET UPPER DEBRIS BASIN DAM MODIFICATION
PROJECT MND (SCH NO. 2013031018)**

Please find attached a revised Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration (MND) for the above-referenced project for filing and distribution by the State Clearinghouse.

The NOI was revised by the County of Los Angeles Department of Public Works (Lead Agency) to correct the website address linking to the MND. Also, the public review period was extended by one week, from April 5 to April 12, 2013, to ensure that all interested parties have a full 30 days for document review subsequent to receiving the revised NOI.

RECEIVED
MAR 11 2013
STATE CLEARING HOUSE

Governor's Office of Planning and Research
March 12, 2013
Page 2

Please contact Ms. Grace Yu at (626) 458-6139 or at gyu@dpw.lacounty.gov with any questions or for further information.

Very truly yours,

GAIL FARBER
Director Public Works


CHRISTOPHER STONE
Assistant Deputy Director
Water Resources Division

MM:yg

P:\FINANCIAL SP\USERS\Michael Miranda\Sunset Canyon Debris Basin Parapet Dam Mod\Final Corrections

Enc.

RECEIVED

**UPDATE: WEBSITE REVISED AND
COMMENT PERIOD EXTENDED**

MAR 11 2013

STATE CLEARING HOUSE



**NOTICE OF INTENT
TO ADOPT A MITIGATED NEGATIVE DECLARATION**

In accordance with Section 15072 of the California Environmental Quality Act Guidelines, this notice is to inform public agencies, County residents and the general public that the Los Angeles County Flood Control District (LACFCD), now administered by the County of Los Angeles Department of Public Works (LACDPW), has completed an Initial Study/Mitigated Negative Declaration (IS/MND) for the following proposed project:

Project Title: Sunset Upper Debris Basin Dam Modification

Project Description: The proposed Sunset Upper Debris Basin Dam Modification Project involves increasing the height of the dam, which, in turn, would increase the capacity of the associated debris basin to provide enhanced flood and debris protection to downstream land uses. The existing Sunset Upper concrete arch dam that forms the debris basin is 28.7 feet high and 181 feet wide, and its spillway (in the center of the dam) is 75 feet wide. The project would increase the height of the Sunset Upper concrete arch dam by a maximum of 5 feet on top of the existing dam. The existing protective fences would be removed during construction and reinstalled, and the trash rack cage behind the spillway would be extended by 5 feet. The existing access road crossing the southern end of the dam would be raised by varying amounts up to 4.8 feet over a distance of approximately 104 linear feet to match the increased dam elevation. The Sunset Upper Debris Basin, located behind the Sunset Upper Dam, currently has a capacity of 20,000 cubic yards (cy). Implementation of the proposed Project would provide an additional 8,000 cy of debris basin storage capacity.

The LACFCD defines two subareas within each debris basin to describe the basin limits and interior work areas/capacity: (1) 25% contact line/mowing contact line (i.e., 25 percent of design capacity), and (2) the 100% contact line (i.e., the design capacity). With proposed Project implementation, the 100% contact line and 25% contact line would increase by 9,002 sf and by 3,279 sf, respectively, along the edges of the existing contact lines. Therefore, the areas within the expanded contact lines would be subject to potential inundation. The existing permits with resource agencies related to long-term debris basin maintenance activities would require amendments subsequent to proposed Project implementation to reflect the expanded 25% and 100% contact lines. The project site is not identified on any hazardous materials list compiled pursuant to Section 65962.5 of the Government Code. The tentative construction schedule for the proposed Project has an anticipated start date in mid-April 2014 and completion by October 2014 (6- to 7-month construction period). Operation and maintenance of the proposed Project would be the same as the existing condition.

Project Location: The Sunset Upper dam and debris basin (Project site) are located on County-owned property within the City of Burbank and in the Verdugo Mountains. The Project site is located in the upper portion of Sunset Canyon, north of the terminus of Country Club Drive, and is surrounded by undeveloped hillside areas.

Public Review Period: **Wednesday, March 6, 2013 through Friday, April 12, 2013**

Lead Agency: Los Angeles County Flood Control District

Contact Person: Ms. Grace Yu, PE, LEED AP
County of Los Angeles Department of Public Works
Water Resources Division
900 South Fremont Avenue, 2nd Floor
Alhambra, California 91803

Availability of Mitigated Negative Declaration: The IS/MND and all referenced documents will be available for public review at the LACDPW office listed above between the hours of 7:00 AM and 5:00 PM Monday through Thursday. The document can also be reviewed online at <http://dpw.lacounty.gov/wrd/CEQA/Sunset/> and at these City of Burbank libraries – Burbank Central Library (110 North Glenoaks Boulevard) and Buena Vista Branch Library (300 N. Buena Vista Street) – during business hours.

Methods of Submitting Comments: Please submit any comments on the IS/MND to Ms. Grace Yu at the above listed address or email to: gyu@dpw.lacounty.gov before 5:00 p.m. on Friday, April 12, 2013.

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery: Street Address: 1400 Tenth Street, Sacramento, CA 95814

SC 2013031018

Project Title: Sunset Upper Debris Basin Dam Modification
Lead Agency: Los Angeles County Flood Control District Contact Person: Grace Yu, PE, LEED AP
Mailing Address: 900 South Fremont Avenue, 2nd Floor Phone: 626 458 6139
City: Alhambra Zip: 91803 County: Los Angeles

Project Location: County: Los Angeles City/Nearest Community: Burbank
Cross Streets: Northern terminus of Country Club Drive Zip Code: 91501
Longitude/Latitude (degrees, minutes and seconds): 34°12'17.5" N, 118°17'06" W Total Acres: 2.58
Assessor's Parcel No.: 5608 005 901 Section: 5 Twp: 1 Range: 13 Base: San Bernardino Meridian
Within 2 Miles: State Hwy #: 5 Waterways: N/A
Airports: N/A Railroads: N/A Schools: N/A

Document Type:
CEQA: NOP Draft EIR NEPA: NOI Other: Joint Document
 Early Cons Supplement/Subsequent (Prior SCH No.) EA Final Document
 Neg Dec Draft EIS Other:
 Mit Neg Dec Other: FONSI

Local Action Type:
 General Plan Update Specific Plan Rezone Annexation
 General Plan Amendment Master Plan Prezone Redevelopment
 General Plan Element Planned Unit Development Use Permit Coastal Permit
 Community Plan Site Plan Land Division (subdivision, etc.) Other: Infrastructure Improvement

Development Type:
 Residential: Units _____ Acres _____ Employees _____
 Office: Sq Ft _____ Acres _____ Employees _____
 Commercial: Sq Ft _____ Acres _____ Employees _____
 Industrial: Sq Ft _____ Acres _____ Employees _____
 Educational _____
 Recreational _____
 Water Facilities: Type _____ MGD _____
Transformation: Type _____
Mining: Mineral _____
Power: Type _____ MW
Waste Treatment: Type _____ MGD
Hazardous Waste: Type _____
 Other: Flood Control Dam Improvement; 8,000 cy debris basin capacity increase

Project Issues Discussed in Document:
 Aesthetics/Visual Fiscal Recreation/Parks Vegetation
 Agricultural Land Flood Plain/Flooding Schools/Universities Water Quality
 Air Quality Forest Land/Fire Hazard Septic Systems Water Supply/Groundwater
 Archaeological/Historical Geologic/Seismic Sewer Capacity Wetland/Riparian
 Biological Resources Minerals Soil Erosion/Compaction/Grading Growth Inducement
 Coastal Zone Noise Solid Waste Land Use
 Drainage/Absorption Population/Housing Balance Toxic/Hazardous Cumulative Effects
 Economic/Jobs Public Services/Facilities Traffic/Circulation Other: GHG Emissions

Present Land Use/Zoning/General Plan Designation:
Sunset Upper Debris Basin Dam, constructed 1926, Open Space (OS) zoning; Mountain Reserve; land use designation
Project Description: The project would increase the height of the Sunset Upper concrete arch dam by a maximum of 5 feet on top of the existing dam. The existing access road crossing the southern end of the dam would be raised by varying amounts up to 4 feet to match the increased dam elevation. The proposed project would provide an additional 8,000 cubic yards (cy) of storage capacity to Sunset Upper Debris Basin, increasing the debris basin capacity would expand the 100% and 25% capacity contact lines, by 9,002 square feet and 3,279 square feet, respectively.

State Clearinghouse Contact: (916) 445-0613

State Review Began: 3 - 6 - 2013

SCH COMPLIANCE 4 - 12 - 2013

Note: Extended Review

Please note State Clearinghouse Number (SCH#) on all Comments

SCH#: 2013031018

Please forward late comments directly to the Lead Agency

AQMD/APCD 33

(Resources: 3 / 4)

Project Sent to the following State Agencies

- Resources
- Boating & Waterways
- Coastal Comm
- Colorado Rvr Bd
- Conservation
- CDFW # 6
- Delta Protection Comm
- Cal Fire
- Historic Preservation
- Parks & Rec
- Central Valley Flood Prot.
- Bay Cons & Dev Comm.
- DWR
- Cal EMA
- Resources, Recycling and Recovery
- Bus Transp Hous
- Aeronautics
- CHP
- Caltrans # 7
- Trans Planning
- Housing & Com Dev
- Food & Agriculture
- Public Health
- State/Consumer Svcs
- General Services
- Cal EPA
- ARB: Airport/Energy Projects
- ARB: Transportation Projects
- ARB: Major Industrial Projects
- SWRCB: Div. Financial Assist.
- SWRCB: Wtr Quality
- SWRCB: Wtr Rights
- Reg. WQCB # A
- Toxic Sub Ctrl-CTC
- Yth/Adlt Corrections
- Corrections
- Independent Comm
- Energy Commission
- NAHC
- Public Utilities Comm
- State Lands Comm
- Tahoe Rgl Plan Agency
- Conservancy
- Other:

State of California
GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
STATE CLEARINGHOUSE
P.O. BOX 3044
SACRAMENTO, CALIFORNIA 95812-3044

9180381331 0026



2013

2013 MAR 20 PM 3 01

MAIL CENTER
U.S. POSTAL SERVICE

State of California – Governor’s Office of Planning and Research (SCH)

March 12, 2013

Comment SCH-1

The Office of Planning and Research (OPR) has copied the LACFCD on the State Clearinghouse Memorandum that notified recipient agencies, as indicated in the attachments to the Memorandum, that the Lead Agency had revised the NOI and extended the public review period. This Memorandum does not include any questions/comments regarding the analyses or conclusions within the Draft IS/MND.

DSOD

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF WATER RESOURCES

1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791



MAR 26 2013

Ms. Grace Yu, P.E.
County of Los Angeles
Department of Public Works
Water Resources Division
900 South Fremont Avenue, Second Floor
Alhambra, California 91803

SCH# 2013031018, Notice of Intent to Adopt a Mitigated Negative Declaration for the
Sunset Upper Debris Basin Dam Modification Project
Los Angeles County

Dear Ms. Yu:

We have reviewed the Mitigated Negative Declaration for the above referenced project, which involves increasing the height of Sunset Upper Debris Basin Dam, which would increase the capacity of the basin behind the dam. Our records show that Sunset Canyon Debris Basin Dam, No. 32-14, was under the jurisdiction of the State for dam safety until 1933, when it was altered and removed from jurisdiction.

The documents indicate that the project will have a height of 28.7 feet with a reservoir capacity of 14.8 acre-feet when the project is completed. As described, the dam would not be subject to State jurisdiction for dam safety.

As defined in Sections 6002 and 6003, Division 3, of the California Water Code, dams 25 feet or higher with a storage capacity of more than 15 acre-feet, and dams higher than 6 feet with a storage capacity of 50 acre-feet or more are subject to State jurisdiction. The dam height is the vertical distance measured from the maximum possible water storage level to the downstream toe of the barrier.

If modifications are made to the dam that will cause it to be of jurisdictional size and subject to State jurisdiction, a construction application, together with plans, specifications, and the appropriate filing fee must be filed with the Division of Safety of Dams. All dam safety related issues must be resolved prior to approval of the application, and the work must be performed under the direction of a Civil Engineer registered in California. Sharon Tapia, our Design Engineering Branch Chief, is responsible for the application process and can be reached at (916) 227-4660.

If you have any questions or need additional information, you may contact Office Engineer Randy Fessler at (916) 227-4601 or me at (916) 227-4600.

Sincerely,

A handwritten signature in black ink, appearing to read "Shawn".

Shawn O. Jones, Regional Engineer
Southern Region
Field Engineering Branch
Division of Safety of Dams

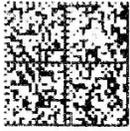
cc: (See attached list.)

1

cc: Ms. Nadell Gayou
Resources Agency Project Coordinator
Environmental Review Section
Division of Statewide Integrated Water Management
901 P Street
Sacramento, California 95814

Governor's Office of Planning and Research
State Clearinghouse
Post Office Box 3044
Sacramento, California 95812-3044

STATE OF CALIFORNIA
CALIFORNIA NATURAL RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
P.O. BOX 942836
SACRAMENTO, CALIFORNIA 94236-0001



UNITED STATES POSTAGE
\$ 00.46
MAILED FROM ZIP CODE 91803

MS GRACE YU
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
WATER RESOURCES DIVISION
900 SOUTH FREMONT AVE SECOND FL
ALHAMBRA CA 91803

9180361331 0025

Department of Water Resources, Division of Safety of Dams (DSOD)

March 26, 2013

Comment DSOD-1

The DSOD indicates that, based on the proposed height of the dam and storage capacity of the debris basin, the Sunset Upper Debris Basin Dam would not be under jurisdiction of the DSOD, consistent with the statement on page 3-5 of the IS/MND. The DSOD also describes the consultation requirements if modifications are made to the dam that would cause it to become of jurisdictional size. This letter does not include any questions/comments regarding the analyses or conclusions within the Draft IS/MND.

LACoFD



COUNTY OF LOS ANGELES FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294
(323) 881-2401

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

March 29, 2013

Ms. Grace Yu, Planner
Los Angeles County Flood Control District
County of Los Angeles Department of Public Works
Water Resources Division
900 South Fremont Avenue, 2nd Floor
Alhambra, CA 91803

Dear Ms. Yu:

**MITIGATED NEGATIVE DECLARATION, NOTICE OF INTENT TO ADOPT A MITIGATED
NEGATIVE DECLARATION, SUNSET UPPER DEBRIS BASIN DAM MODIFICATION, TO
INCREASE THE HEIGHT OF THE DAM, UPPER PORTION OF SUNSET CANYON, NORTH OF
THE TERMINUS OF COUNTRY CLUB DRIVE, BURBANK (FFER #201300035)**

The Mitigated Negative Declaration has been reviewed by the Planning Division, Land Development Unit, Forestry Division and Health Hazardous Materials Division of the County of Los Angeles Fire Department. The following are their comments:

PLANNING DIVISION:

1. The subject property is entirely within the City of Burbank, which is not a part of the emergency response area of the Los Angeles County Fire Department (also known as the Consolidated Fire Protection District of Los Angeles County). Therefore, this project does not appear to have any impact on the emergency responsibilities of this Department.

LAND DEVELOPMENT UNIT:

1. The County of Los Angeles Fire Department has no requirements for this permit. This project is located entirely in the City of Burbank. Therefore the City of Burbank Fire Department has jurisdiction concerning this project and will be setting conditions.

} 1

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS	CALABASAS	DIAMOND BAR	HIDDEN HILLS	LA MIRADA	MALIBU	POMONA	SIGNAL HILL
ARTESIA	CARSON	DUARTE	HUNTINGTON PARK	LA PUENTE	MAYWOOD	RANCHO PALOS VERDES	SOUTH EL MONTE
AZUSA	CERRITOS	EL MONTE	INDUSTRY	LAKEWOOD	NORWALK	ROLLING HILLS	SOUTH GATE
BALDWIN PARK	CLAREMONT	GARDENA	INGLEWOOD	LANCASTER	PALMDALE	ROLLING HILLS ESTATES	TEMPLE CITY
BELL	COMMERCE	GLENORA	IRVINDALE	LAWDALE	PALOS VERDES ESTATES	ROSEMEAD	WALNUT
BELL GARDENS	COVINA	HAWAIIAN GARDENS	LA CANADA FLINTRIDGE	LOMITA	PARAMOUNT	SAN DIMAS	WEST HOLLYWOOD
BELLFLOWER	CUDAHY	HAWTHORNE	LA HABRA	LYNWOOD	PICO RIVERA	SANTA CLARITA	WESTLAKE VILLAGE
BRADBURY							WHITTIER

Ms. Grace Yu, Planner
March 29, 2013
Page 2

2. The County of Los Angeles Fire Department, Land Development Unit, appreciates the opportunity to comment on this permit. Should any questions arise, please contact Juan Padilla, at (323) 890-4243 or Juan.Padilla@fire.lacounty.gov.

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

1. The statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources and the County Oak Tree Ordinance.
2. The loss of Oak tree habitat should be mitigated for pursuant to the provisions of the City of Burbank Oak Tree Ordinance.
3. We have not received an Oak Tree Permit application or report for review. An Oak Tree Permit may be required for this project.

HEALTH HAZARDOUS MATERIALS DIVISION:

1. The Health Hazardous Materials Division has no objection to the proposed project.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,



FRANK VIDALES, ACTING CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

FV:ij

1
(cont.)

COUNTY OF LOS ANGELES
FIRE DEPARTMENT
FORESTRY DIVISION
5823 RICKENBACKER ROAD, ROOM #123
COMMERCE, CA 90040-4335

2013 APR 9 AM 8 25
MAIL CENTER
1000 W. 10TH AVE.

MS. GRACE YU, PLANNER
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
WATER RESOURCES DIVISION
900 SOUTH FREMONT AVENUE, 2ND FLOOR
ALHAMBRA, CA 91803

9180341201 0026

County of Los Angeles Fire Department (LACoFD)

March 29, 2013

Comment LACoFD-1.

This letter primarily describes the limited statutory responsibilities and/or jurisdiction of the LACoFCD for the Project site, as it is located within the City of Burbank. As stated on page 4-22 of the IS/MND, “no trees would be removed or require trimming during project construction; therefore, there would be no impact on coast live oak or Southern California black walnut trees and no permits would be needed.” Therefore, in response to item numbers 2 and 3 under “Forestry Division – Other Environmental Concerns”, an oak tree permit either with the County of Los Angeles or the City of Burbank would not be needed.

This letter does not include any questions/comments regarding the analyses or conclusions within the Draft IS/MND.

BURBANK

From: "Yu, Grace" <GYU@dpw.lacounty.gov>
To: "Corrigan, Sean" <SCorrigan@burbankca.gov>
Date: 4/16/2013 7:35 AM
Subject: RE: Sunset Upper Debris Basin Dam Modification
CC: "Barrett, Carol" <CBarrett@burbankca.gov>, "Molinar, John" <JMolinar@bur...

Mr. Corrigan,

Thank you for your comment. The Project Manager, Mike Miranda, will provide you with as-built drawings at the completion of the project.

Grace Yu, P.E., LEED AP

County of Los Angeles
Department of Public Works
Water Resources Division
[626.458.6139] | [gyu@dpw.lacounty.gov]


From: Corrigan, Sean [mailto:SCorrigan@burbankca.gov]
Sent: Friday, April 12, 2013 4:06 PM
To: Yu, Grace
Cc: Barrett, Carol; Molinar, John; Rynn, Daniel; Sloan, Tom; Sanchez, Ricardo; Mace, Bill
Subject: Sunset Upper Debris Basin Dam Modification

Ms. Yu,

I am writing in response to your notice of intent to adopt a mitigated negative declaration for the above project. This project will increase the height of the current dam.

We support your effort to reduce the risk of debris flows and flooding for our citizens who live and work below Sunset Canyon. Your study includes a commitment to implement best management practices during the project to minimize tracking of dirt onto Country Club Drive, our major concern.

We ask that you provide us with as-built drawings at the completion of the project.

Thank you for the opportunity to comment on the project.

Sean Corrigan

Sean Corrigan, P.E.
Chief Assistant Public Works Director/City Engineer
City of Burbank
(818) 238-3804

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Sean Corrigan, Chief Assistant Public Works Director/City Engineer, City of Burbank (BURBANK)

April 12, 2013

Comment BURBANK-1.

This letter expresses support for the Project and notes that the City's major concern of tracking of dirt onto Country Club Drive had been addressed. This letter also requests that the LACFCD provide the City with as-built drawings at Project completion.

On April 16, 2013, the LACFCD contact for the CEQA process, Ms. Grace Yu, acknowledged receipt of Mr. Corrigan's e-mail comment, and committed to provide the as-built drawings.

SECTION 3.0 ERRATA

The following text changes are made to the Draft IS/MND and incorporated as part of the Final IS/MND, comprised of the Draft IS/MND and this MMRP, Response to Comments, and Errata document. These changes further substantiate conclusions and/or clarify aspects of the previously circulated document. None of these changes reflect a determination of a new or more significant environmental impact than disclosed in the Draft IS/MND. Changes to the text are noted with **bold** (for added text) or ~~strikeout~~ type (for deleted text).

Page 4-22 through 4-24 (Section 4.4 Biological Resources)

MM 4.4-3 The LACFCD will work with the CDFW during the preparation of the Project's Streambed Alteration Agreement to incorporate into the Agreement CDFW-approved temporary exclusionary measures to prevent raptor nesting within the established buffer distance from the Project construction areas. The LACFCD will employ approved exclusionary measures prior to February 1 (start of raptor breeding season) and remove them upon completion of construction activities.

~~Prior to construction of the proposed Project, a~~ **A** pre-construction survey for active raptor nests shall be conducted by a qualified Biologist prior to the commencement of any construction activities as directed in the CDFW Streambed Alteration Agreement. If an active nest is observed, it shall be mapped and a buffer zone designated per CDFW's direction to protect the nest. **The size of the buffer zone shall be designated based on consultation between CDFW and a qualified Biologist regarding the specific raptor nest(s), if present, and the recommendations of CDFW and the qualified Biologist on the site shall be implemented throughout Project construction.** Construction activities will be excluded from this buffer zone until the nest is no longer active. **If an active raptor nest(s) is present and a buffer zone has been implemented, a qualified Biologist shall be retained by the LACFCD to periodically monitor, at an interval to be determined by the Biologist, the efficacy of the buffer and the status of the nest(s). All recommendations of the monitoring Biologist shall be implemented by the LACFCD, and the Biologist shall have the authority to halt construction activity and/or move the buffer as necessary if the nest(s) being monitored are being adversely affected.**

Prior to any maintenance activities within the expanded maintenance areas during the breeding season (February 1 to July 30), the LACFCD will follow the same pre-construction raptor nesting survey procedure and restrictions as described above. This approach is consistent with the LACFCD's existing debris basin maintenance permits.

MM 4.4-4 The LACFCD will work with the CDFW during the preparation of the Project's Streambed Alteration Agreement to incorporate into the Agreement CDFW-approved temporary exclusionary measures to prevent migratory bird nesting within the established buffer distance from the Project construction areas. The LACFCD will employ approved exclusionary measures prior to March 1 (start of nesting season) and remove them upon completion of construction activities.

~~Prior to construction of the proposed Project, a~~ **A** pre-construction survey for active bird nests shall be conducted by a qualified Biologist **prior to the commencement of any construction activities as directed in the CDFW Streambed Alteration Agreement (or as otherwise directed in the CDFW Streambed Alteration Agreement).** The survey shall include all potential nesting areas, including dam structures and bare ground. If an active nest is observed, it shall be mapped and a buffer zone designated per CDFW's direction to protect the nest. **The size of the buffer zone shall be designated based on consultation between CDFW and a qualified Biologist regarding the specific migratory bird nest(s), if present, and the recommendations of CDFW and the qualified Biologist on the site shall be implemented throughout Project construction.** ~~the size of the buffer will be determined by the Biologist based on the sensitivity of the species and CDFW requirements.~~ Construction activities will be excluded from this buffer zone until the nest is no longer active. **If an active migratory bird nest(s) is present and a buffer zone has been implemented, a qualified Biologist shall be retained by the LACFCD to periodically monitor, at an interval to be determined by the Biologist, the efficacy of the buffer and the status of the nest(s). All recommendations of the monitoring Biologist shall be implemented by the LACFCD, and the Biologist shall have the authority to halt construction activity and/or move the buffer as necessary if the nest(s) being monitored are being adversely affected.**

Prior to any maintenance activities within the expanded maintenance areas during the nesting season (March 1 to August 31), the LACFCD will follow the same pre-construction nesting bird survey procedure and restrictions as described above. This approach is consistent with LACFCD's existing debris basin maintenance permits.

Page 4-33 (Section 4.7 Greenhouse Gas Emissions)

The County has not adopted or established any quantitative significance criteria for GHG emissions. In April 2008, the SCAQMD convened a working group to provide guidance to local lead agencies on determining the significance for GHG emissions in their CEQA documents. The working group adopted a philosophy similar to recommendations made by other agencies in California to identify Significance Screening Levels, or thresholds, for GHG emissions. Projects with GHG emissions less than these levels or thresholds would be determined to have less than significant impacts. Projects with GHG emissions greater than the Significance Screening Level would be required to implement specific performance standards or purchase offsets to reduce their climate change impact to less than significant levels. In December 5, 2008, the SCAQMD Governing Board adopted an interim screening threshold for industrial projects where SCAQMD is the lead agency of 10,000 MTCO₂e/year. In September 2010, the working group proposed to expand this 10,000 MTCO₂e/year threshold to other lead agency industrial projects (SCAQMD 2010). Although the SCAQMD Governing Board has yet to consider this proposal, the SCAQMD threshold is the most applicable to the Project and is used in the analysis below. **Because the magnitude of global GHG emissions is extremely large when compared with the emissions of typical development projects, it is accepted as very unlikely that any individual development project would have GHG emissions of a magnitude to directly impact global climate change. CAPCOA's CEQA and Climate Change states, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective" (CAPCOA 2008). Therefore, the analysis of GHG emissions is inherently a cumulative analysis.**

Page 4-34 (Section 4.7 Greenhouse Gas Emissions)

~~Because construction impacts are relatively short term (approximately 6 to 7 months), they would contribute a relatively small portion of the overall lifetime Project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. In its Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Thresholds, the SCAQMD recommends that construction emissions be amortized over a 30-year Project lifetime so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies (SCAQMD 2008). Therefore,~~

~~The increase in GHG emissions for the Project, based on the 30-year amortization of construction emissions, is estimated at 5 MTCO₂e per year, which is substantially less than the 10,000 MTCO₂e per year threshold recommended by SCAQMD. As discussed further below, there would be no increase or decrease in GHG emissions related to long-term debris basin maintenance (i.e., operation of the Project) because this is an ongoing activity that is already occurring. As such, GHG emissions from implementation of the Project would not be cumulatively considerable. The Project would not generate GHG emissions that, either directly or indirectly, may have a significant impact on the environment. Impacts from construction GHG emissions would be less than significant and no mitigation is required.~~

Page 4-56 (Section 4.16 Transportation/Traffic)

Due to the narrow width of Country Club Drive, **during concrete pouring/placing operations, parking will be prohibited for about 4 days during construction hours.** There will be no parking restrictions during cleanout operations.

Page 5-2 (Section 5.0 References)

California Air Pollution Control Officers Association (CAPCOA). 2010 (August). *Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures*. Sacramento, CA: CAPCOA. <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.

———. 2008 (January). *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*. Sacramento, CA: CAPCOA. <http://www.capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-White-Paper.pdf>.



MITIGATION MONITORING AND REPORTING PROGRAM

SUNSET UPPER DEBRIS BASIN
DAM MODIFICATION PROJECT
COUNTY OF LOS ANGELES, CALIFORNIA

SCH No. 2013031018

Prepared for | County of Los Angeles
Department of Public Works
Water Resources Division
900 South Fremont Avenue, Second Floor
Alhambra, California 91803

Prepared by | BonTerra Consulting
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August 2013

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

Pursuant to the California Environmental Quality Act (CEQA), the potential environmental effects of the proposed Sunset Upper Debris Basin Dam Modification Project (Project) have been analyzed in an Initial Study/Mitigated Negative Declaration (IS/MND) (SCH No. 2013031018) dated February 2013. Pursuant to Section 15367 of the CEQA Guidelines, the Los Angeles County Flood Control District (LACFCD), now administered by the Los Angeles County Department of Public Works (LACDPW), is the Lead Agency for the Project.

Section 15074(d) of the CEQA Guidelines states that, when adopting a mitigated negative declaration, the Lead Agency shall adopt a program for reporting on or monitoring the changes that it has either required in the project or made a condition of approval to reduce or avoid significant environmental effects. Section 21081.6 of CEQA and Section 15097 of the CEQA Guidelines require a public agency to adopt a Mitigation Monitoring and Reporting Program (MMRP) for assessing and ensuring the implementation of required mitigation measures applied to proposed projects. Specific reporting and/or monitoring requirements that will be enforced during project implementation shall be adopted simultaneously with final Project approval by the responsible decision making body. The MMRP provided in this document describes the mitigation program to be implemented by the LACFCD.

The MMRP for the Sunset Upper Debris Basin Dam Modification Project consists of Mitigation Measures (MMs), for biological resources that will reduce or avoid significant environmental effects associated with Project implementation. The MMs for the Project are listed in the first column in the Table below, along with the timeframe for implementing the MM in the second column; the agency or party with primary responsibility for implementing the MM in the third column; and the agency or party with responsibility for monitoring compliance in the fourth column. Implementation of the MMs for the Project would primarily be the responsibility of the LACFCD, as the Lead Agency under CEQA, and its consultants/contractors.

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Mitigation Timing	Responsible Agency/Party	Monitoring Agency/Party
Biological Resources (Section 4.4 of the Draft IS/MND)			
<p>MM 4.4-1 Prior to construction of the dam modifications, the County of Los Angeles Flood Control District (LACFCD) or their consultant will contact the U.S. Fish and Wildlife Service (USFWS) to determine the appropriate pre-construction survey methodology (e.g., full protocol survey or a reduced-visit modified survey protocol) for the coastal California gnatcatcher and discuss and obtain approval on pre-nesting season exclusionary measures and avoidance and minimization measures if a nesting coastal California gnatcatcher is observed during the pre-construction survey. The LACFCD will implement the approved exclusionary measures prior to the coastal California gnatcatcher's breeding season. A permitted gnatcatcher Biologist (i.e., one holding a 10[a][1][A] permit to conduct surveys for the coastal California gnatcatcher) shall conduct a pre-construction survey for coastal California gnatcatcher following the methodology approved by the USFWS to determine the presence or absence of this species in the coastal sage scrub in and adjacent to the Project site. If no coastal California gnatcatchers are observed, no further avoidance or mitigation would be required. If the coastal California gnatcatcher is observed during the pre-construction survey, the LACFCD (and/or its consultant Biologist) will implement the approved avoidance and minimization measures. These measures may include biological monitoring by a permitted gnatcatcher Biologist during construction or maintenance activities; construction or maintenance activities restricted to occur outside the breeding season (February 14 to August 15); or noise restrictions near the occupied area.</p> <p>Prior to any maintenance activities within the expanded maintenance areas during the breeding season, the LACFCD will follow the same pre-construction survey as described above. This approach is consistent with the LACFCD's existing debris basin maintenance permits.</p>	<p>(1) Prior to initiation of construction activities</p> <p>and</p> <p>(2) During construction and routine maintenance activities (if gnatcatcher present)</p>	<p>LACFCD, permitted gnatcatcher Biologist</p>	<p>LACFCD, USFWS</p>
<p>MM 4.4-2 Prior to construction, the LACFCD will obtain permits/agreements from the U.S. Army Corps of Engineers (USACE), the California Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW) to authorize impacts to "waters of the United States", including wetlands, and resources under the jurisdiction of the CDFW that are outside the impacts already authorized under the LACFCD's existing permits/agreement for maintenance of the debris basin. (These maintenance authorizations are comprised of: USACE Regional Permit File No. SPL-2003-00411-KW; RWQCB File No. 02-144-2008 Renewal; and CDFG Streambed Alteration Agreement No. 1600-2008-0290-R5.) No Project-related discharge or fill material will be allowed to impact any</p>	<p>(1) Prior to initiation of construction activities</p> <p>and</p> <p>(2) During construction and routine maintenance activities (implementing permit conditions)</p>	<p>LACFCD</p>	<p>LACFCD, USACE, RWQCB, and CDFW</p>

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Mitigation Timing	Responsible Agency/Party	Monitoring Agency/Party
<p>drainages in the Project impact area until the new permits/agreement are obtained. Compliance with the conditions of the new permits/agreement and applicable conditions of the existing maintenance permits/agreement will be made part of the Project construction. Based on LACFCD's experience, these conditions may include biological monitoring during the initiation of construction; use of Best Management Practices (BMPs) to protect water quality; flagging of the boundaries of the construction site; measures to protect trees; other measures to protect sensitive species; mitigation for construction impacts outside those already authorized in the existing maintenance permits/agreement; and mitigation for ongoing impacts within the expanded maintenance area. Such mitigation may include on-site or off-site preservation or restoration of impacted habitat.</p> <p>It is anticipated that the permits/agreement for the construction of the Project will also cover the first several years of maintenance within the expanded maintenance area, until the LACFCD and the permitting agencies can coordinate to amend the existing maintenance permits/agreement to incorporate the additional maintenance footprint.</p>			
<p>MM 4.4-3 The LACFCD will work with the CDFW during the preparation of the Project's Streambed Alteration Agreement to incorporate into the Agreement CDFW-approved temporary exclusionary measures to prevent raptor nesting within the established buffer distance from the Project construction areas. The LACFCD will employ approved exclusionary measures prior to February 1 (start of raptor breeding season) and remove them upon completion of construction activities.</p> <p>A pre-construction survey for active raptor nests shall be conducted by a qualified Biologist prior to the commencement of any construction activities as directed in the CDFW Streambed Alteration Agreement. If an active nest is observed, it shall be mapped and a buffer zone designated per CDFW's direction to protect the nest. The size of the buffer zone shall be designated based on consultation between CDFW and a qualified Biologist regarding the specific raptor nest(s), if present, and the recommendations of CDFW and the qualified Biologist on the site shall be implemented throughout Project construction. Construction activities will be excluded from this buffer zone until the nest is no longer active. If an active raptor nest(s) is present and a buffer zone has been implemented, a qualified Biologist shall be retained by the LACFCD to periodically monitor, at an interval to be determined by the Biologist, the efficacy of the buffer and the status of the nest(s). All recommendations of the monitoring Biologist shall be implemented by the LACFCD, and the Biologist shall have the authority to halt construction activity and/or move the buffer as</p>	<p>(1) Prior to February 1 of year of construction, during construction, and at completion of construction</p> <p>and</p> <p>(2) During routine maintenance activities from February 1 to July 30</p>	<p>LACFCD</p>	<p>LACFCD, CDFW</p>

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Mitigation Timing	Responsible Agency/Party	Monitoring Agency/Party
<p>necessary if the nest(s) being monitored are being adversely affected.</p> <p>Prior to any maintenance activities within the expanded maintenance areas during the breeding season (February 1 to July 30), the LACFCD will follow the same pre-construction survey procedure and restrictions as described above. This approach is consistent with the LACFCD's existing debris basin maintenance permits.</p>			
<p>MM 4.4-4 The LACFCD will work with the CDFW during the preparation of the Project's Streambed Alteration Agreement to incorporate into the Agreement CDFW-approved temporary exclusionary measures to prevent migratory bird nesting within the established buffer distance from the Project construction areas. The LACFCD will employ approved exclusionary measures prior to March 1 (start of nesting season) and remove them upon completion of construction activities.</p> <p>A pre-construction survey for active bird nests shall be conducted by a qualified Biologist prior to the commencement of any construction activities as directed in the CDFW Streambed Alteration Agreement. The survey shall include all potential nesting areas, including dam structures and bare ground. If an active nest is observed, it shall be mapped and a buffer zone designated per CDFW's direction to protect the nest. The size of the buffer zone shall be designated based on consultation between CDFW and a qualified Biologist regarding the specific migratory bird nest(s), if present, and the recommendations of CDFW and the qualified Biologist on the site shall be implemented throughout Project construction. Construction activities will be excluded from this buffer zone until the nest is no longer active. If an active migratory bird nest(s) is present and a buffer zone has been implemented, a qualified Biologist shall be retained by the LACFCD to periodically monitor, at an interval to be determined by the Biologist, the efficacy of the buffer and the status of the nest(s). All recommendations of the monitoring Biologist shall be implemented by the LACFCD, and the Biologist shall have the authority to halt construction activity and/or move the buffer as necessary if the nest(s) being monitored are being adversely affected.</p> <p>Prior to any maintenance activities within the expanded maintenance areas during the nesting season (March 1 to August 31), the LACFCD will follow the same pre-construction survey procedure and restrictions as described above. This approach is consistent with LACFCD's existing debris basin maintenance permits.</p>	<p>(1) Prior to March 1 of year of construction, during construction, and at completion of construction</p> <p>and</p> <p>(2) During routine maintenance activities from March 1 to August 31</p>	<p>LACFCD</p>	<p>LACFCD, CDFW</p>